

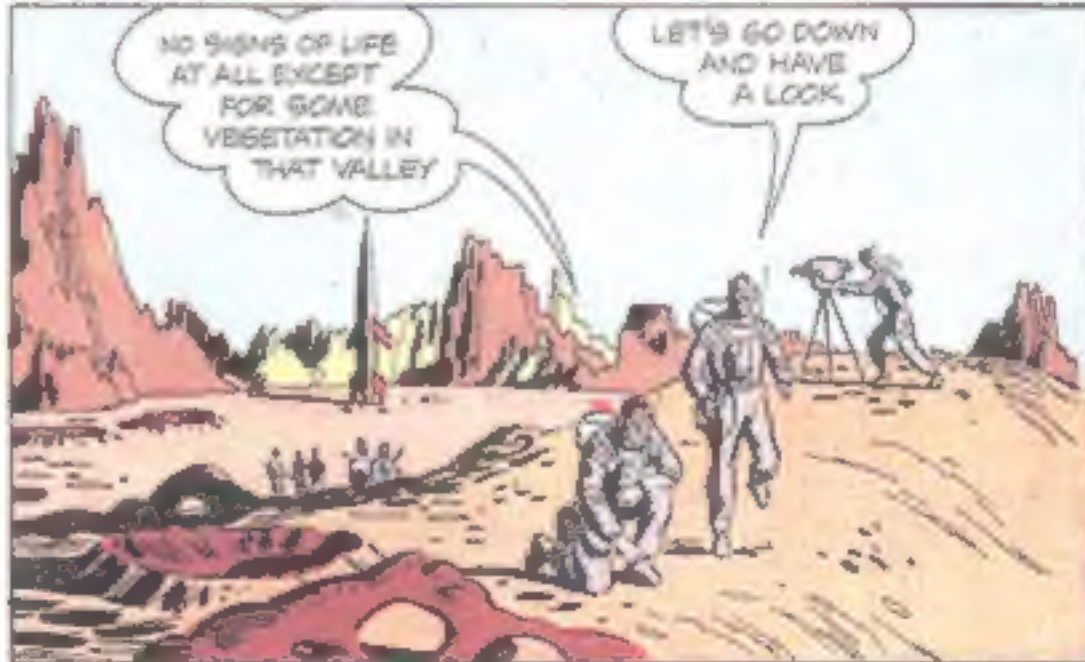
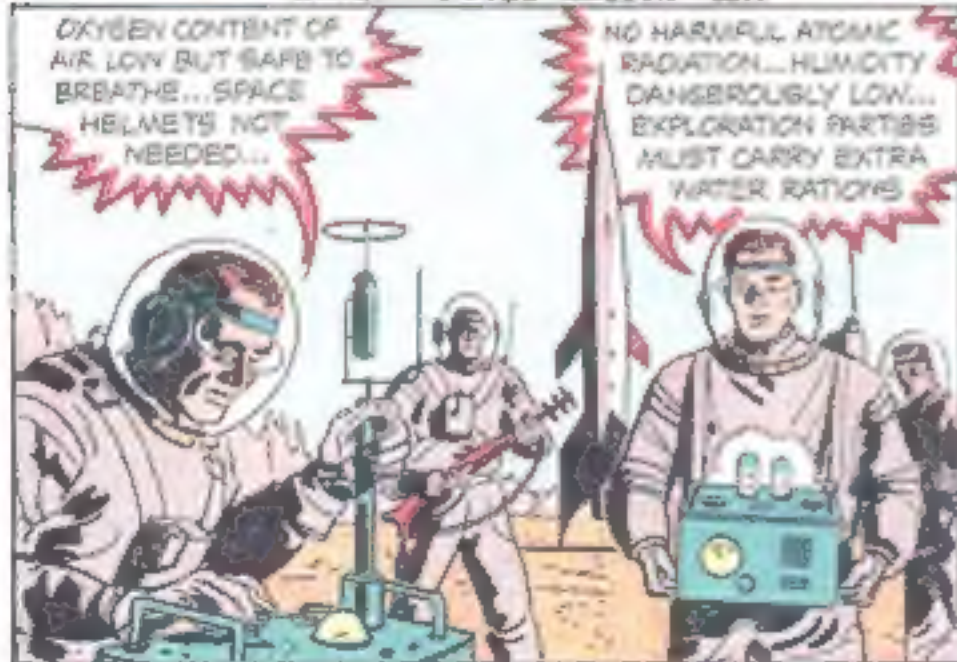
SPACE CONQUERORS!

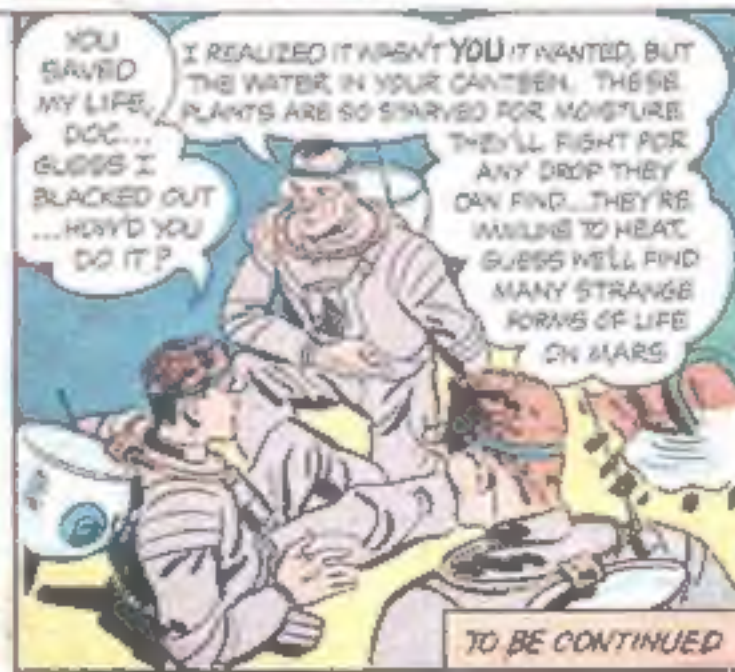
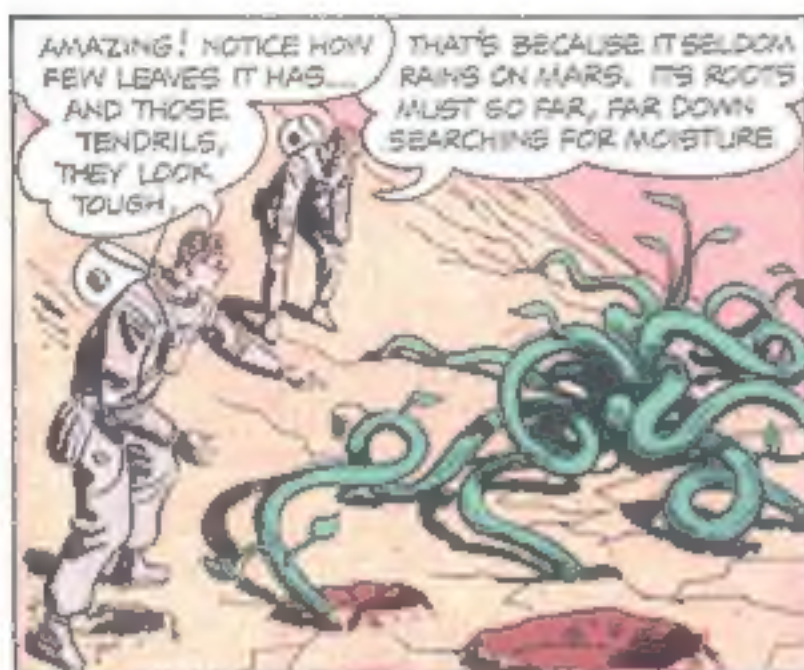
BY AL STENZEL

FASTER THAN THE SPEED OF LIGHT, THE GIANT SPACE CRUISER HURTLBS THROUGH THE VOID TOWARD ITS DESTINATION... MARS!



BY DEFT SPACEMANSHIP, THE SLEEK CRAFT IS BROUGHT DOWN TO THE SURFACE OF MARS, TAIL FIRST, USING ROCKET BURSTS TO BRAKE THE DESCENT.





SPACE CONQUERORS!

BY AL STENZEL

AFTER THEIR NEAR-TRAGIC EXPERIENCE WITH A VORACIOUS, WATER-SEEKING PLANT, THE FIRST EARTHMEN TO LAND ON MARS SET OUT TO SOLVE THE MYSTERY OF ITS STRANGE CANALS...

WHEN! EVEN WITH MARS' LIGHT GRAVITY, CLIMBING HILLS IN THIS THIN AIR IS HARD ON THE LUNGS! I FEEL...HEY, THERE'S A CANAL IN THAT VALLEY!

AND IF THAT ISN'T A BUILDING DOWN THERE, I'LL EAT MY SPACE HELMET! LOOK HOW IT GLOWS!

LET'S GO DOWN AND LOOK IT OVER. WONDER HOW YOU SAY 'HELLO' IN MARTIAN?

HAVE YOUR RAY-GUN READY! THEY MAY NOT LIKE STRANGERS DROPPING IN!

WHAT AN **ODD** STRUCTURE! JUST GLOWS BY ITSELF, YET I HAVE A FEELING WE'RE BEING STUDIED!

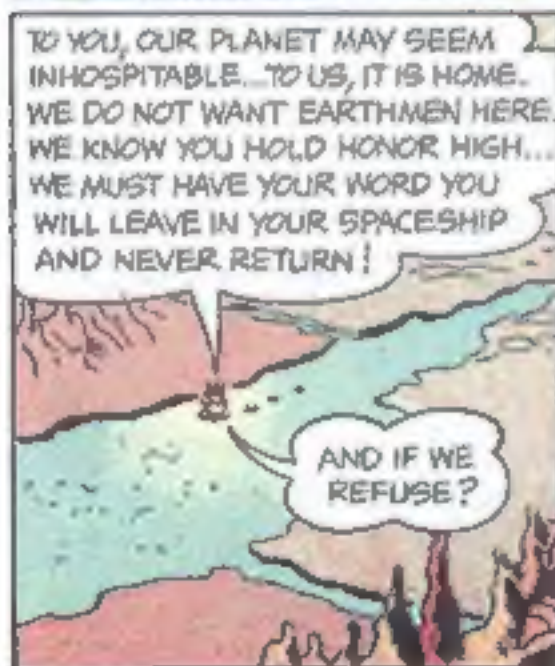
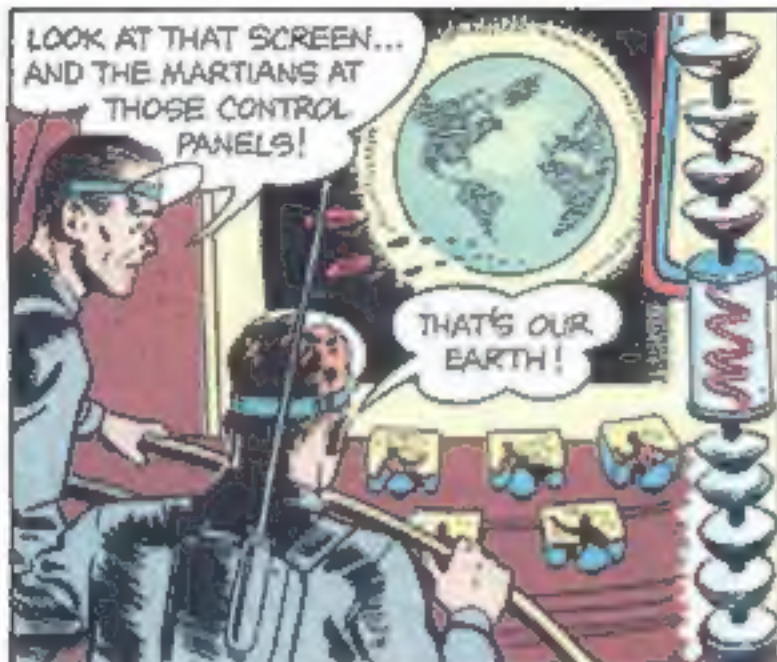
IT'S A COMPLICATED GADGET...MUST BE AN AUTOMATIC MACHINE. THERE'S AN OPENING...LET'S SEE WHAT'S INSIDE!

WHOA! STAY BACK! THAT MEANS STOP IN ANY LANGUAGE!

THERE HE IS...MY RAY-GUN WILL TEACH HIM HOW TO GREET VISITORS!

NO-NO...HE ONLY WARNED US...HE'S POINTING FOR US TO GO IN THERE

SPAT!!!



SPACE CONQUERORS!

BY AL STENZEL

THE FIRST EARTHMEN, LED BY DOC AND RED, TO REACH MARS FIND INTELLIGENT BEINGS THERE WHO WARN THEM TO RETURN TO EARTH OR RISK DESTRUCTION BY TERRIBLE, REMOTE-CONTROLLED DEATH RAYS!

THESE MARTIANS ARE SO FAR AHEAD OF US IN SCIENCE WE HAVE NO CHOICE BUT TO DO AS THEY SAY. THEY COULD BLAST US TO DUST WITH THE TURN OF A DIAL!

SEEMS FUNNY ONLY DOC AND RED SAW THESE MARTIANS... AND WERE ABLE TO TALK TO 'EM!

YEAH, HOW COME THEY LET US LAND IN THE FIRST PLACE, IF THEY'RE SO SMART?

YOU AND DOC WANT TO SCARE US INTO LEAVING, THEN YOU TWO WILL COME BACK LATER AND GRAB OFF THE FORTUNE IN URANIUM!

LET'S LOAD UP WITH THE ORE!

SURE! THEY DREAMED UP THAT STORY

IF THEY WON'T HELP, LEAVE 'EM HERE!

DON'T BE FOOLS, MEN! WE CAME TO EXPLORE, NOT TO STEAL URANIUM!

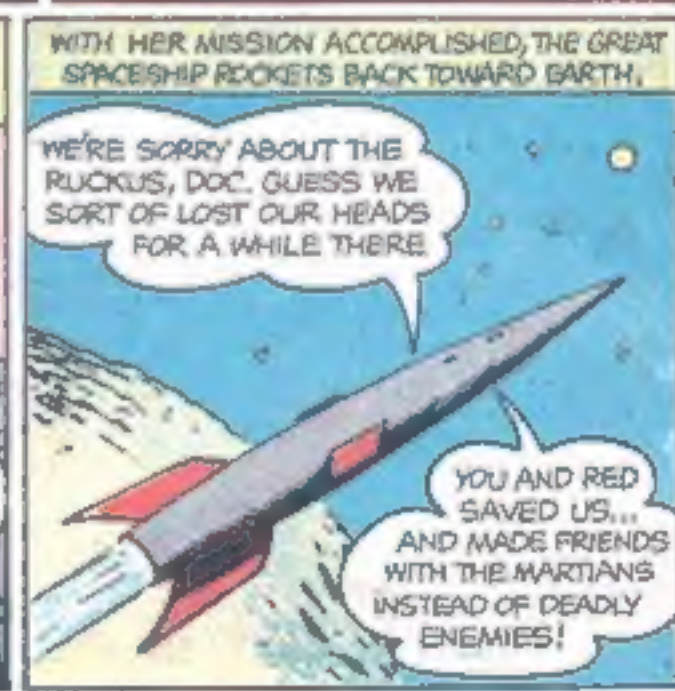
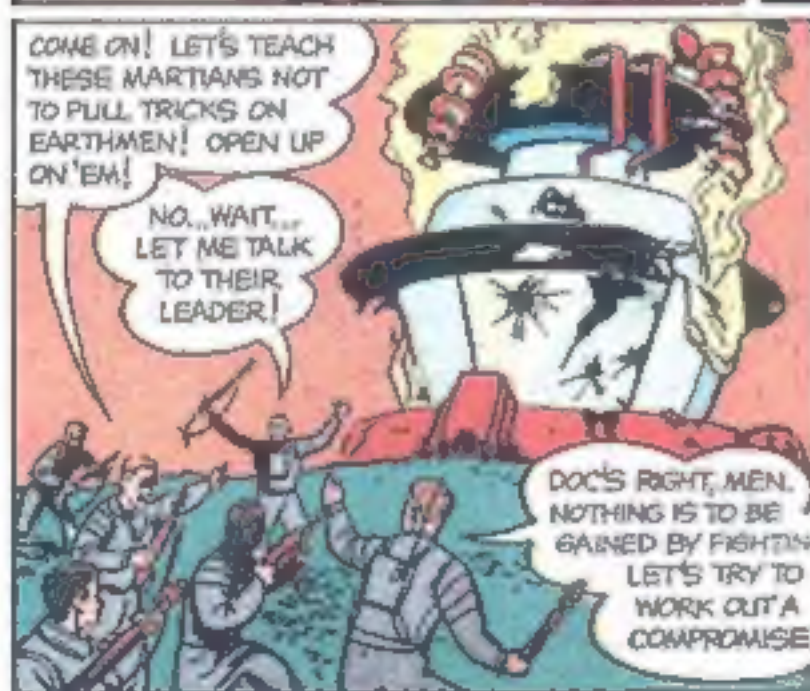
THE FORTUNE-MAD CREW, DISREGARDING ALL DOC'S AND RED'S WARNINGS, FEVERISHLY MINE THE HUGE URANIUM DEPOSIT AND LOAD THEIR SPACE SHIP... SUDDENLY...

WE CAN'T STOP THEM, RED. THEY WON'T LISTEN TO US, THE FOOLS

LOOK, DOC... THOSE DISKS SPEEDING THIS WAY! THEY'RE MARTIAN CONTROLLED ROBOT SHIPS... WARN THE CREW!

QUICK! OUR ONLY CHANCE IS TO DESTROY THEIR CONTROL STATION... FOLLOW US!

YOU WERE WARNED, EARTHMEN! NOW YOU SHALL FEEL THE MIGHT OF MARS!



SPACE CONQUERORS!

BY AL STENZEL

THROUGH THE BLACKNESS OF OUTER SPACE THE FIRST SPACESHIP TO REACH MARS ROCKETS TOWARD ITS HOME PLANET, EARTH! ROUTINE DUTIES ARE SUDDENLY INTERRUPTED...



DOC!
SOMETHING'S
GONE HAYWIRE
WITH OUR
INSTRUMENTS!

WE'RE FAR OFF OUR
COURSE AND I CAN'T
BRING HER BACK.

THOSE MARTIAN
ROBOT DISCS
MUST HAVE
DAMAGED OUR
CONTROLS, BUT
I CAN'T FIND
ANYTHING WRONG
WITH 'EM HERE!

OH, OH,
SOMEONE'S
GOT TO GO
OUTSIDE
AND LOOK
FOR THE
TROUBLE

I GUESS
IT'S UP TO
RED
AND ME!



CUT THE ROCKETS AS SOON
AS WE'RE IN THE AIR LOCK.
I HAVE A HUNCH THE
DAMAGE IS NEAR.
THE TUBES

HAVE THE MEN
STAND BY IN
CASE WE NEED
MORE TOOLS



EVERYONE IS SO INTENT ON THESE
PREPARATIONS, THE SWIFT APPROACH
OF AN UNCHARTED PLANETOID RUSHING
UPON THE SPACESHIP
IS UNNOTICED.



DOC! LOOK...
THAT THING'S
HEADING
RIGHT FOR
THE SHIP!

DOC TO PILOT! DOC TO PILOT!
BLAST OFF AT ONCE OR YOU'LL BE
HIT! WE'LL CUT LOOSE. DON'T
ARGUE...THIS IS AN
ORDER!



SORRY, RED, BUT IT'S BETTER FOR TWO OF US TO GO RATHER THAN THE WHOLE SHIP'S COMPANY!

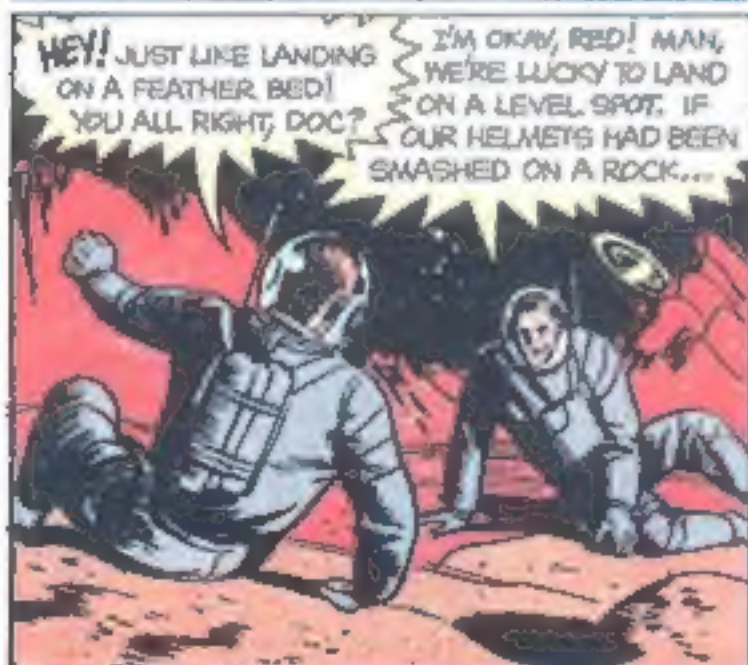
SAVE IT, DOC, YOU WERE ABSOLUTELY RIGHT. MAYBE THEY'LL BE ABLE TO PICK US UP LATER



THE FORCE OF THE SHIP'S ACCELERATION, PLUS THE SPEED AND DIRECTION OF THE PLANETOID DRAW DOC AND RED INTO ITS GRAVITATIONAL PULL... THEY "FALL" TOWARD ITS RUGGED SURFACE

DOC! WE'RE GOING TO CRASH!

IT'S PRETTY SMALL...NOT MUCH MASS, MAYBE WE'LL HIT EASY



HEY! JUST LIKE LANDING ON A FEATHER BED! YOU ALL RIGHT, DOC?

I'M OKAY, RED! MAN, WE'RE LUCKY TO LAND ON A LEVEL SPOT. IF OUR HELMETS HAD BEEN SMASHED ON A ROCK...



IF WE TOUCH HELMETS, WE CAN TALK AND SAVE THE BATTERIES. HOW ARE WE FIXED FOR AIR AND FOOD, DOC?

SHOULD HAVE ENOUGH FOR A FEW DAYS. IF WE COULD ONLY SIGNAL THE SHIP!



AND BACK ON THE SPACESHIP...

THAT SUDDEN BLAST CLEARED AWAY WHATEVER IT WAS THAT WAS JAMMING OUR CONTROLS, CAPTAIN!

SHIP'S RESPONDING, SIR!

GOOD...I'VE PLOTTED THE PLANETOID'S COURSE!

CONTINUED...



MILLIONS OF MILES IN OUTER SPACE, TWO MEN SACRIFICE THEMSELVES IN ORDER TO SAVE THEIR SPACESHIP FROM DESTRUCTION BY AN UNCHARTED PLANETOID RUSHING TOWARD IT.

INSTEAD OF THE INSTANT DEATH THEY EXPECTED, HOWEVER, THE TWO LAND SAFELY ON THE PLANETOID'S STRANGE METALLIC SURFACE.



LET'S LOOK THIS PLACE OVER AS LONG AS... WHOOPS! CAREFUL, RED. WITH THIS LIGHT GRAVITY YOU MIGHT STEP RIGHT OFF INTO SPACE!



DOC, LOOK! OVER THERE... CAN THAT BE A BUILDING OF SOME KIND? BY GEORGE! I BELIEVE IT IS! COME ON...



IT IS, THE RUINS OF A HUGE BUILDING! BUT HOW COULD ANYTHING LIVE ON THIS SMALL, AIRLESS PLANETOID?

VERY, VERY STRANGE! LET'S TAKE A CLOSER LOOK. MAYBE WE CAN FIND A CLUE THERE!



DOC! THAT'S A CHART OF OUR SOLAR SYSTEM! SEE, THERE'S OUR SUN, MERCURY, VENUS, EARTH, MARS, AND...

YOU'RE RIGHT... AND THERE'S A PLANET THAT DOESN'T EXIST! GAY, I'M BEGINNING TO SEE THE ANSWER TO THIS RIDDLE!



EARTH ASTRONOMERS HAVE LONG BELIEVED THAT THERE WAS ONCE A PLANET BETWEEN MARS AND JUPITER WHICH WAS SOMEHOW DESTROYED AND THE ASTEROIDS ARE THE REMAINS OF THAT EXPLODED PLANET

AND THIS SMALL PLANETOID MIGHT HAVE ONCE BEEN A PART OF IT?



DOC, HERE'S AN
OPENING INTO
THIS RUIN...
THERE'S A ROW
OF CARVED
FIGURES
INSIDE!
I'M GOING IN!

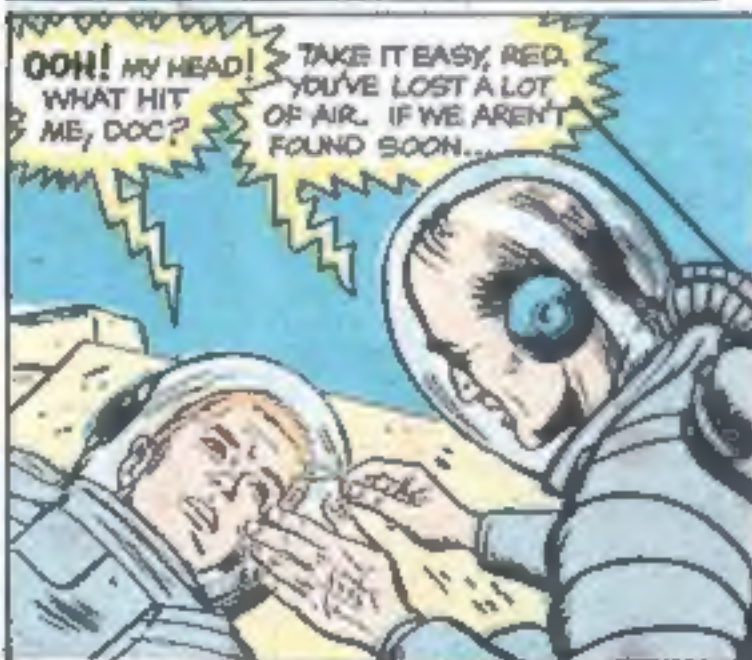
BE CAREFUL,
RED. THESE
RUINS ARE
DANGEROUS!



OUCH! I...
DOC! DOC!
MY HELMET...



THE FALL KNOCKED HIM
UNCONSCIOUS AND CRACKED
HIS HELMET. I'VE GOT TO PLUG
IT UP SOME WAY BEFORE HE
LOSES ALL HIS AIR!



OOH! MY HEAD!
WHAT HIT
ME, DOC?

TAKE IT EASY, RED.
YOU'VE LOST A LOT
OF AIR. IF WE AREN'T
FOUND SOON...



THERE ISN'T
MUCH HOPE
IS THERE,
DOC?

NOT MUCH, RED. TOO
BAD! I'D LIKE TO SEARCH
ONE OF THE LARGER
ASTEROIDS FOR MORE
EVIDENCES OF THE
CIVILIZATION THAT THIS
PLANETOID MUST ONCE
HAVE BEEN A PART



MEANWHILE, ABOARD THE
SPACESHIP...

THERE'S THE PLANETOID,
SIR. DO YOU THINK DOC
AND RED COULD HAVE
LANDED ON IT?

RESCUE
CREW...
STAND
BY FOR
LANDING

IF THEY
WEREN'T
KILLED BY
OUR ROCKET
BLAST THEY
MIGHT HAVE
CIRCLE AROUND
IT SLOWLY

CONTINUED

SPACE CONQUERORS!

MARoonED ON AN UNCHARTED PLANETOID, TWO EARTHMEN FACE CERTAIN DEATH FROM LACK OF FOOD AND OXYGEN, UNLESS THEIR SPACESHIP CAN FIND THEM IN THE IMMENSITY OF OUTER SPACE.

DOC!
MY AIR!
IT'S GETTING
HARD TO
BREATHE



EASY, RED. EASY!
A LOT OF YOUR AIR
ESCAPED WHEN YOU
CRACKED YOUR HELMET.
JUST BE QUIETLY, I'M
SURE WE'LL BE
FOUND SOON.

I'LL ADD SOME OF MY AIR
TO YOUR TANK WITH
THIS EMERGENCY
TUBE!

BUT DOC,
THEN YOU'LL
BE TOO
LOW ON AIR!



THIS ATOM PISTOL
WAS ONLY ONE CHARGE
LEFT! PRAY THE SICK
SOMEWHERE AROUND
TO SEE IT.



LOOK OUT
TO BRIDGE!
ATOMIC PISTOL
BLAST ON
PLANETOID,
BEARING 90°
RELATIVE



THAT MUST BE RED AND
DOC! TAKE HER DOWN, LIVE!
NOW RESCUE CREW REPORT
TO A P LOCK! ALL HANDS
PREPARE FOR EMERGENCY
LANDING!

WE SAW
YOUR ATOMIC
SIGNAL!

GET RED TO THE SICK
- RAY QUICKLY HE'S
ALMOST OUT OF AIR
YOU DIDN'T
ARRIVE A
MINUTE
TOO SOON!

RIGHT,
DOC!
WE'LL TAKE
CARE OF
HIM!



A FEW HOURS LATER.

HE'S COMING ALONG FINE. BE AS GOOD AS NEW BY MORNING.

GIVING ME SOME OF YOUR AIR SAVED MY LIFE, DOC!

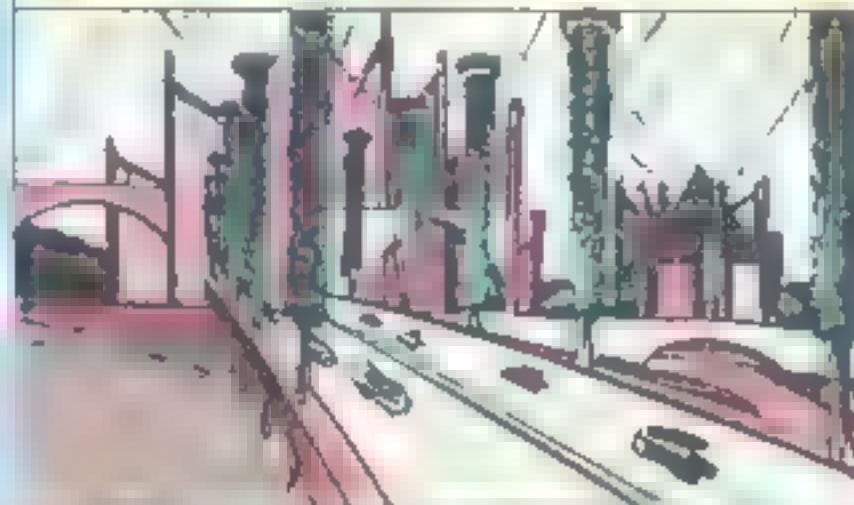
IF THE SHIP HADN'T SEEN OUR SIGNAL SHOT NEITHER OF US WOULD HAVE BEEN SAVED!

DOC, DO YOU STILL THINK THAT
~~IN A LITTLE WHILE WE'LL FIND THE~~
LOST PLANET?

YES, RED, AND THOSE RUINS WE SAW PROVED IT TO MY SATISFACTION. HERE'S HOW I FIGURE IT.



A ONE TIME NO ONE KNOWS HOW MANY MILLIONS OF YEARS AGO, THERE WAS A LARGE PLANET BETWEEN MARS AND JUPITER, PROBABLY INHABITED BY A HIGHLY ADVANCED CIVILIZATION!



IN SOME WAY THAT PLANET WAS DESTROYED. PERHAPS A WANDERING COMET CAME TOO CLOSE AND BOTH WERE TORN APART BY GRAVITATIONAL FORCES OR

PERHAPS THEIR SCIENTISTS HAD DEVELOPED SOME TERRIBLE WEAPON OF DESTRUCTION, AND DURING A WAR HAD BLOWN THEIR WHOLE WORLD TO BITS...



WHEN THINGS FINALLY SETTLED DOWN, THE PIECES OF THAT PLANET FORMED WHAT WE CALL THE ASTEROID BELT. FOREVER REVOLVING AROUND OUR SUN IN THE SAME ORBIT!



I FOR ONE WOULD LIKE TO SEARCH THE LARGER ASTEROIDS FOR EVIDENCES OF THAT LOST RACE!

WE'RE ALL FOR IT, DOC! LET'S BLAST OFF!



SPACE CONQUERORS!

B. ALSTHIRE

OFF TO SEARCH FOR EVIDENCES OF AN ADVANCED CIVILIZATION ON ONE OF THE LARGER ASTEROIDS THE SPACESHIP FROM EARTH BLASTS A PERILOUS WAY INTO THE ASTEROID BELT

KEEP ON YOUR TOES, MEN. WE'RE IN A MIGHTY CROWDED SECTION OF SPACE IN THIS ASTEROID BELT!

ONE HIT BY EVEN A SMALL ROCK WOULD BE OUR FINISH!

THERE'S CERES! IT'S THE LARGEST OF THE ASTEROIDS YET ONLY ABOUT 480 MILES IN DIAMETER. WE'LL START OUR SEARCH THERE

ALL HANDS STAND BY FOR LANDING. BREAK OUT SPACE SUITS AND HELMETS

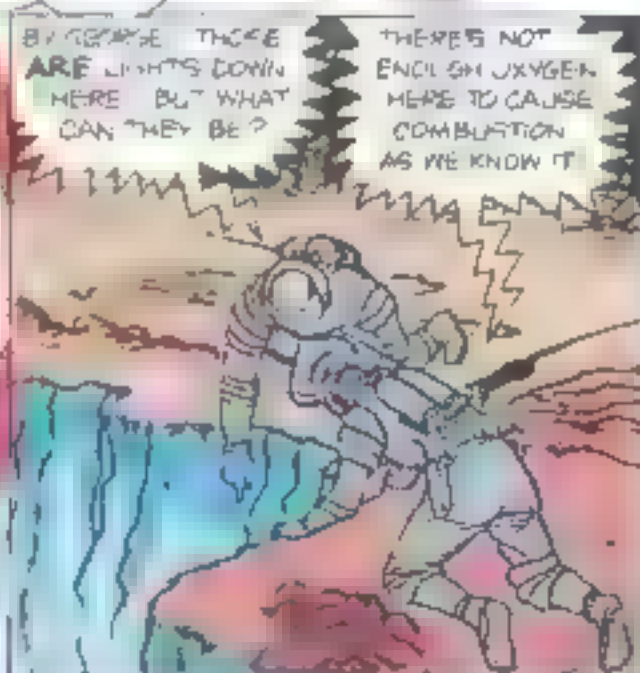
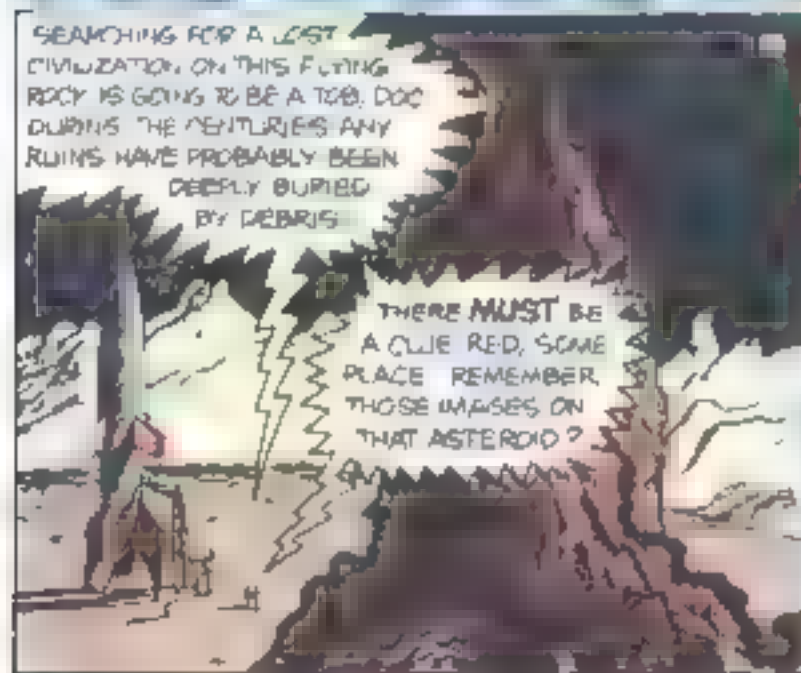
SEARCHING FOR A LOST CIVILIZATION ON THIS FLYING ROCK IS GOING TO BE A TOMB DOO DURING THE CENTURIES ANY RUINS HAVE PROBABLY BEEN DEEPLY BURIED BY DEBRIS

THERE MUST BE A CLUE RED, SOME PLACE REMEMBER THOSE IMAGES ON THAT ASTEROID?

GOD, COME HERE. I THINK I SEE LIGHTS WAY DOWN IN THIS CREVICE

BY GEORGE, THOSE ARE LIGHTS DOWN HERE. BUT WHAT CAN THEY BE?

THERE'S NOT ENOUGH OXYGEN HERE TO CAUSE COMBUSTION AS WE KNOW IT



DETERMINED TO SOLVE THE MYSTERY OF THE STRANGE LIGHTS, DOC AND RED BEGIN THE DESCENT INTO THE DEEP CHASM ON CABLES RIGGED BY THE SPACESHIP'S CREW.

GOOD THING THERE'S VERY LITTLE GRAVITY ON THIS SMALL ASTEROID!

DOC! THIS CREVICE IS REALLY DEEP! HOW FAR DOWN ARE WE NOW?

I'D SAY WE'RE NEARLY 10,000 FEET DOWN! THAT'S ALMOST 2 MILES! AND WE'RE STILL ONLY ABOUT HALF WAY TO THE BOTTOM!

EVEN SO, IF THAT CABLE SHOULD BREAK! HEY! I CAN SEE A REFLECTION OF LIGHT JUST BELOW

THERE! RED! SEE IT? JUST AROUND THAT SPUR OF ROCK! SET YOUR RADIATION DEFLECTOR UP HIGH, WE CAN'T TAKE ANY CHANCES ON WHAT THAT GLOW MIGHT BE

I'M WAY AHEAD OF YOU, DOC! MINE'S BEEN ON SINCE WE STARTED DOWN! I DON'T WANT TO BECOME RADIO ACTIVE!

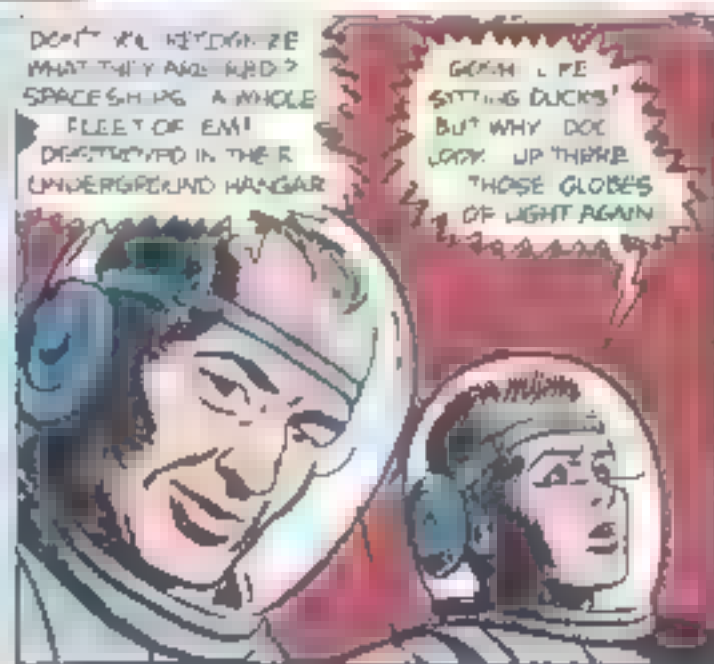
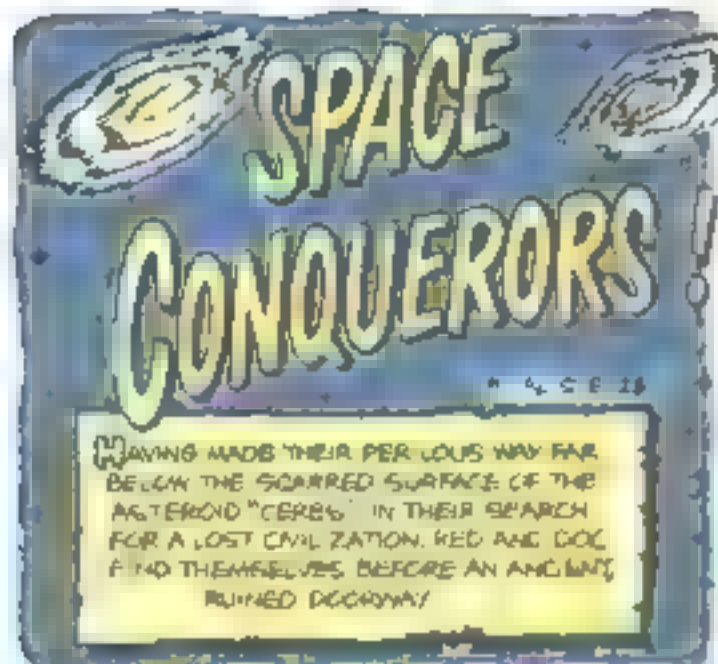
FANTASTIC, RED, BUT NOT IMPOSSIBLE! THIS CAVERN IS ACTUALLY A VACUUM... THERE'S NO AIR PRESSURE! THE GRAVITY IS SO LIGHT THAT EQUAL ATTRACTION IS PROBABLY EXERCISED FROM ALL DIRECTIONS ON EACH LODGE AND ON EACH OTHER. NOTICE THAT THEY FORM AN EQUILATERAL TRIANGLE TOO!

THREE BRILLIANT GLOBES OF LIGHT JUST FLOATING IN SPACE! DOC! THAT'S IMPOSSIBLE!

PEE! I'M RIGHT HERE! WAITING FOR WHAT WAS ON THE PAVEMENT! THERE WAS A CRYSTALIZATION HERE!

AND LOOK! LOOK! THERE'S A DOORWAY OVER THERE! COME ON! LET'S GO! AT WHAT'S INSIDE!

CONTINUED



SPACE CONQUERORS

BY AL SYLVE

IF THESE WERE SPACE SHIPS, DOC, WHY WEREN'T THEY STREAMLINED LIKE OURS?

I'D GUESS, BECAUSE THEIR SCIENTISTS HAD DISCOVERED A WAY TO OVERCOME GRAVITY OTHER THAN BY VELOCITY AS WE MUST DO.

ON THE AFTERDID, "CERES," DOC AND RED DISCOVER A FLEET OF SPACE SHIPS LYING WRECKEN AMONG THE ANCIENT RUINS OF A CIVILIZATION DESTROYED MILLIONS OF YEARS AGO. DOC CONTINUES HIS THEORY ON WHAT MIGHT HAVE HAPPENED.

WE MUST ATTAIN TERRIFIC SPEED IN ORDER TO OFFSET GRAVITATIONAL PULL, AND STREAMLINING OUR ROCKETS CUTS DOWN ATMOSPHERIC RESISTANCE. THESE SHIPS PROBABLY ROSE SLOWLY UNTIL IN FREE SPACE AND THEN ZOOMED OFF FULL SPEED AHEAD!

WAIT TILL I BUZZ THE SHIP, DOC, AND LET THEM KNOW WE'RE OKAY. DON'T WANT EM TO WORRY ABOUT OUR SAFETY.

FAR ABOVE, ON THE SURFACE OF THE AFTERDID

WONDER HOW DOC AND RED HERE THEY ARE NOW. COME IN RED.

EVERYTHING COME TOGETHER GOT A LOT TO REPORT WHEN WE COME BACK TORSIDE.

GOOD! TELL EM WE'LL NEED ON EXPLORING UP HERE.

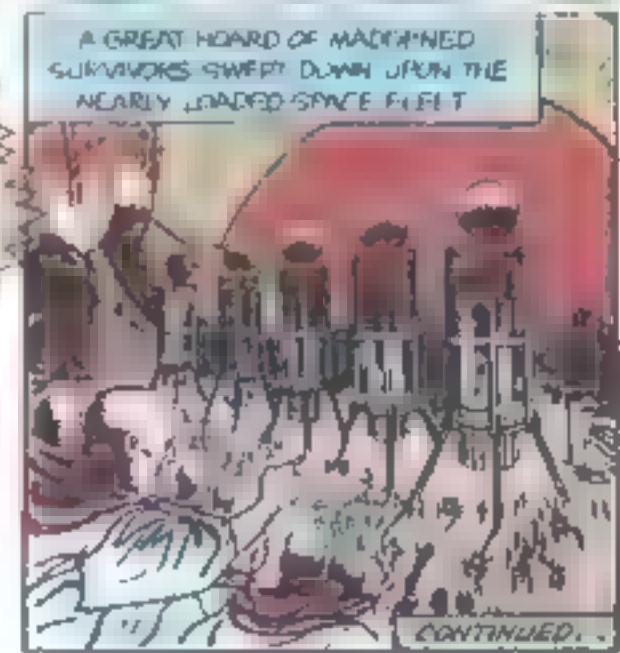
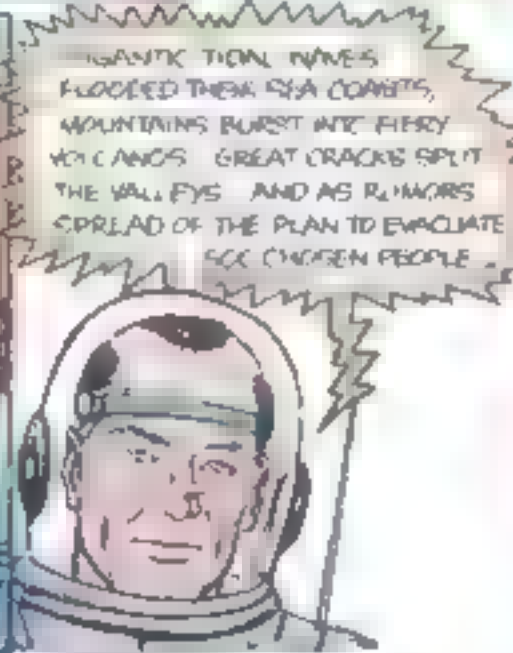
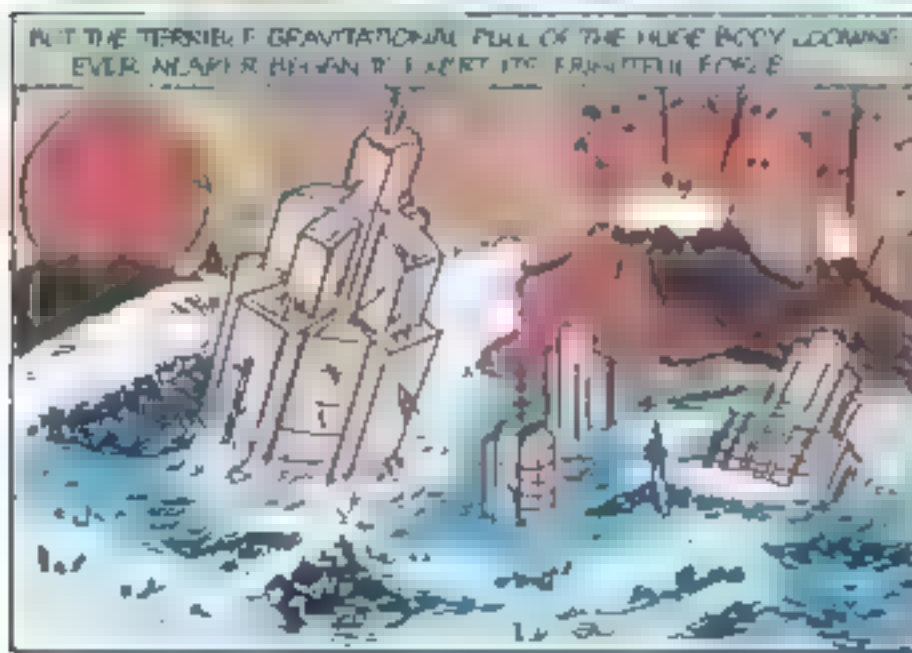
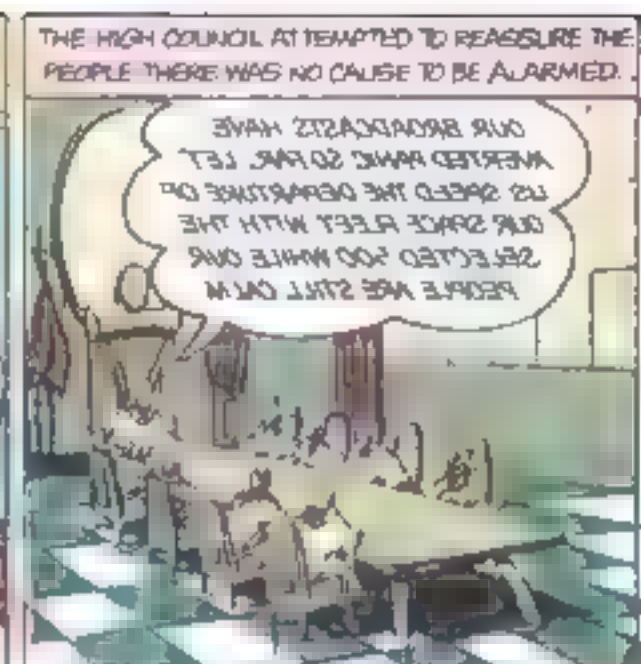
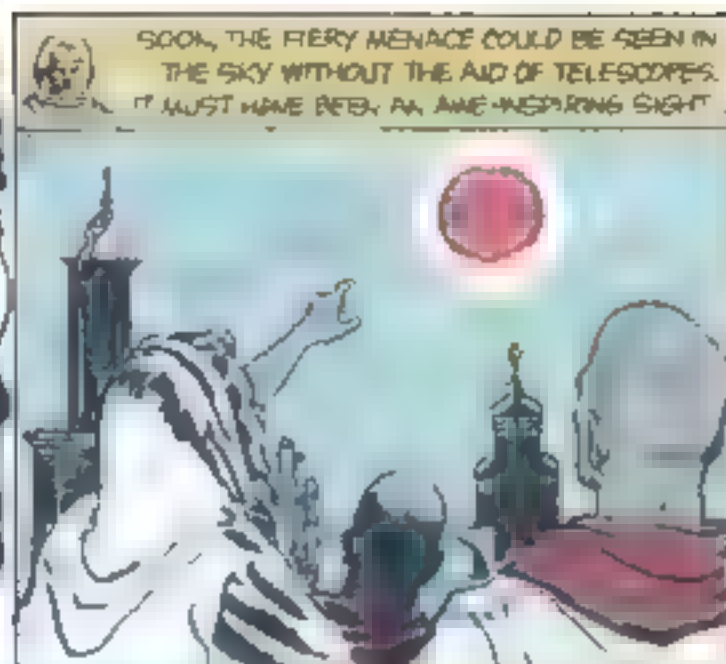
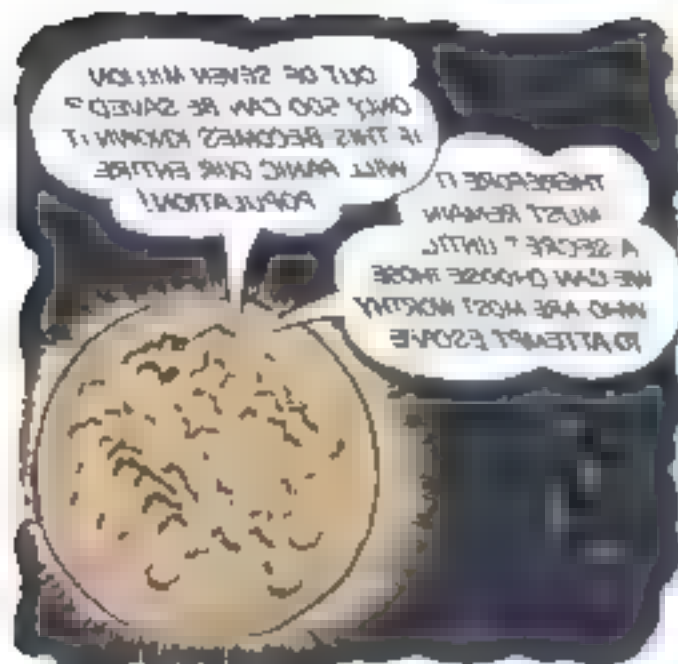
AND MANY MILES BELOW, IN A DEEP Cavern

GO ON WITH YOUR STORY OF WHAT MIGHT HAVE HAPPENED HERE, DOC. YOU'VE GOT ME.

WE... YOU CAN IMAGINE THE HORROR. IT MUST HAVE BEEN FOR THE HIGH COUNCIL TO HEAR THAT ONLY A FEW COULD ESCAPE THE DESTRUCTIVE MASS RUSHING TOWARD THEIR DOOMED PLANET.

THE CHIEF OF TRANSPORTATION CONTINUED HIS STARTLING ANNOUNCEMENT.

WE HAVE COME TO OUR LAST SPACE FEET EXPERIMENTAL SPACE FEET BUT THERE IS ROOM FOR ONLY 200 ABOARD THEM, WITH ALL THE NECESSARY EQUIPMENT TO BEGIN A NEW LIFE ON ANOTHER PLANET!



SPACE CONQUERORS!

BY AL STENZEL

DISCOVERING THE RUINS OF A SPACE FLEET ON THE ASTEROID "ERES," TWO EARTHMEN IMAGINE WHAT MIGHT HAVE HAPPENED COUNTLESS MILLIONS OF YEARS AGO.

OF COURSE NO ONE WILL EVER KNOW WHAT REALLY CAUSED THE DESTRUCTION OF THIS MYSTERIOUS PLANET RED.

MAYBE A CLOSER LOOK AT THESE RUINS WILL GIVE US A CLUE YOUR THEORY SOUNDS PLAUSIBLE. DOC TELL ME MORE!



*FROM THE NUMBER OF RUINED SPACE-SHIPS HERE TO GUESS THAT JUST AS THE CROWD OF DOOMED PEOPLE STORMED THE FLEET OF LOADED SHIPS, NOW READY TO TAKE OFF...

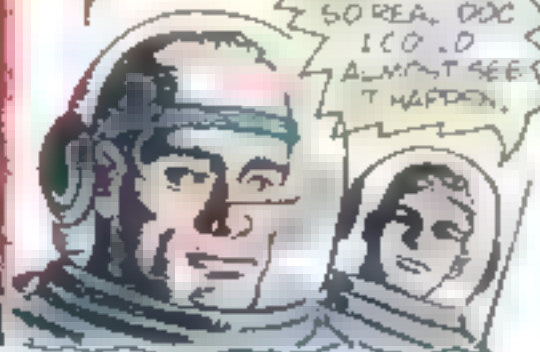


...IT WAS TOO LATE! THE DOOMED PLANET AND THE WANDERER FROM OUTER SPACE COLLIDED!



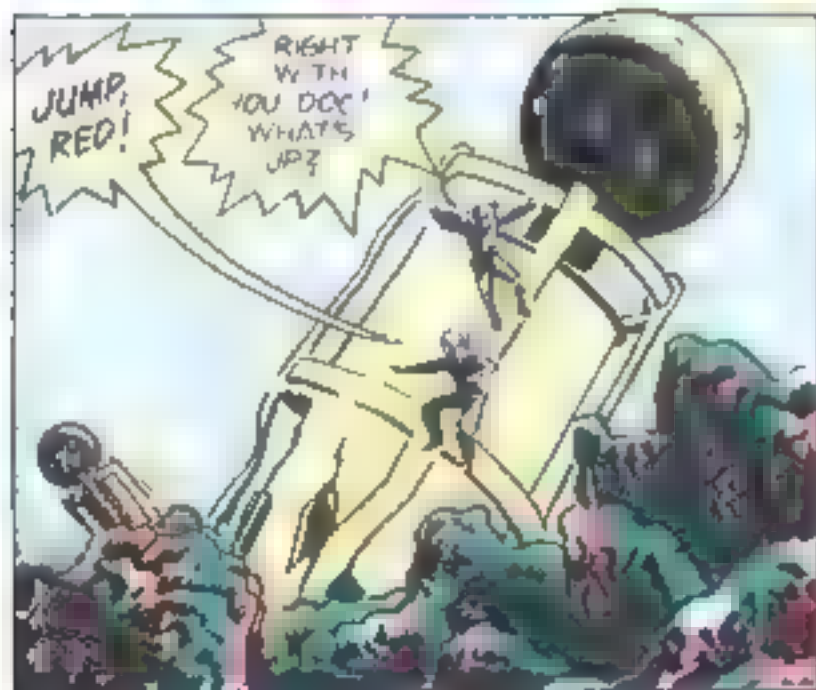
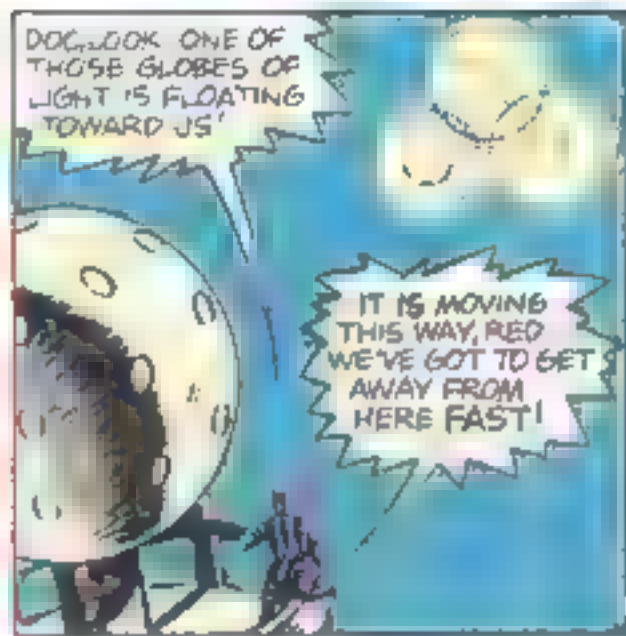
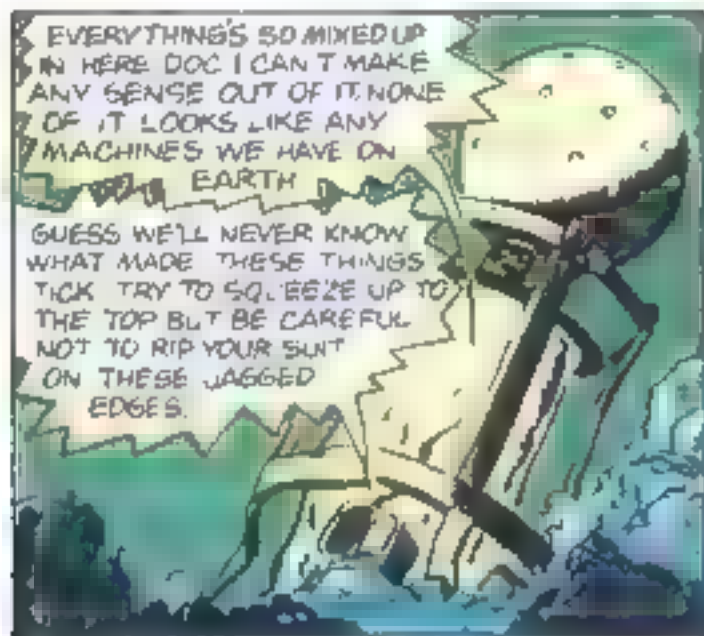
AND NOW ALL THAT IS LEFT OF WHAT MIGHT HAVE ONCE BEEN A GREAT CIVILIZATION ARE THOSE BROKEN AND TWISTED BITS OF METAL THAT WE THINK WERE SPACE SHIPS.

KHEN YOU MADE IT SOUND SO REAL, DOC I COULD ALMOST SEE IT HAPPEN.



LET'S SEE IF WE CAN GET INSIDE. IF BETTER BE GETTING BACK TO THE SURFACE SOON.





SPACE CONQUERORS!

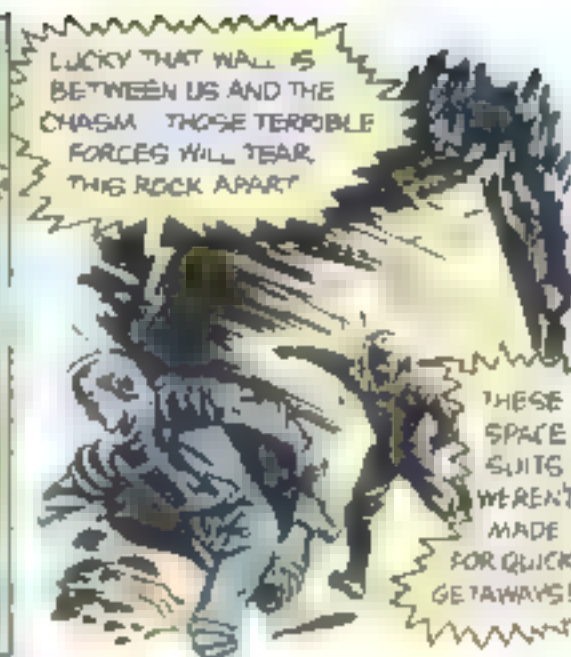
BY AL STENZEL

WHILE INSPECTING A WRECKED SPACESHIP FAR BELOW THE SURFACE OF THE ASTEROID "CERES" TWO EARTHMEN STRUGGLE TO ESCAPE FROM THE DEEP CAVERN BEFORE THEY ARE TRAPPED BY A STRANGE HAPPENING



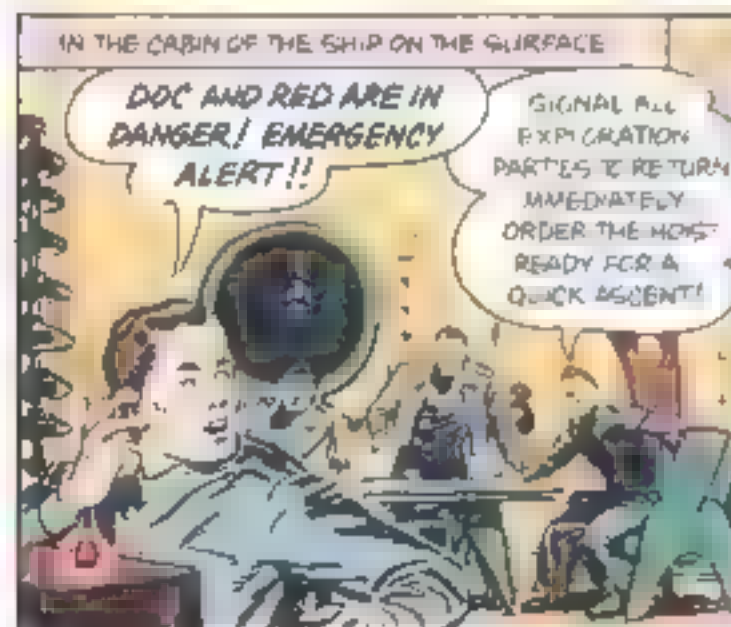
DOC: DON'T TELL ME THAT MACHINE CAN STILL WORK AFTER BEING WRECKED COUNTLESS MILLIONS OF YEARS AGO! THAT'S IMPOSSIBLE!

ALL I KNOW RED, IS WE'VE GOT TO GET AWAY FROM HERE FAST!



LUCKY THAT WALL IS BETWEEN US AND THE CHASM. THOSE TERRIBLE FORCES WILL TEAR THIS ROCK APART

THESE SPACE SUITS WEREN'T MADE FOR QUICK GETAWAYS!



IN THE CABIN OF THE SHIP ON THE SURFACE

DOC AND RED ARE IN DANGER! EMERGENCY ALERT!!

SIGNAL ALL EXPLORATION PARTIES TO RETURN IMMEDIATELY ORDER THE HOVS READY FOR A QUICK ASCENT!



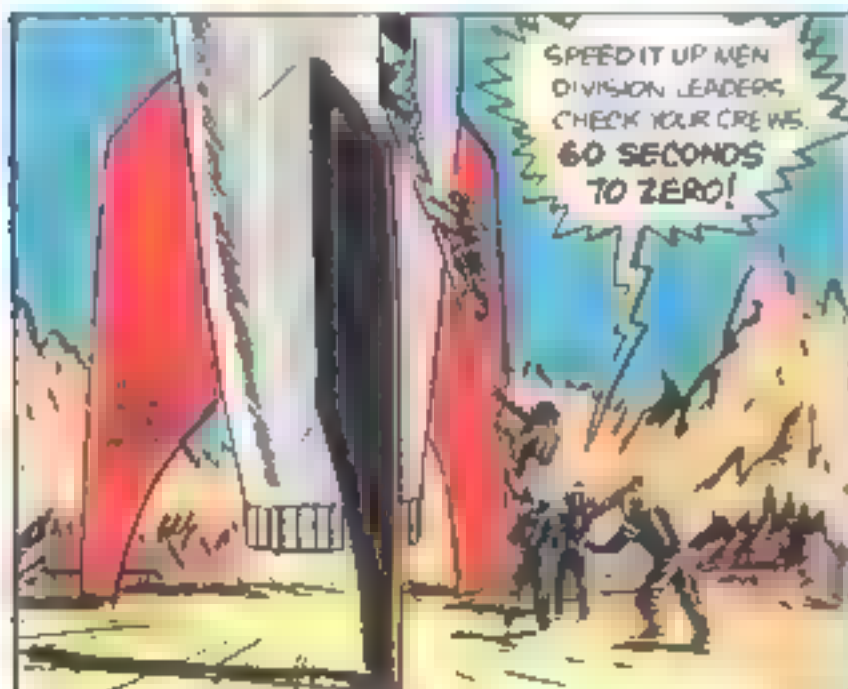
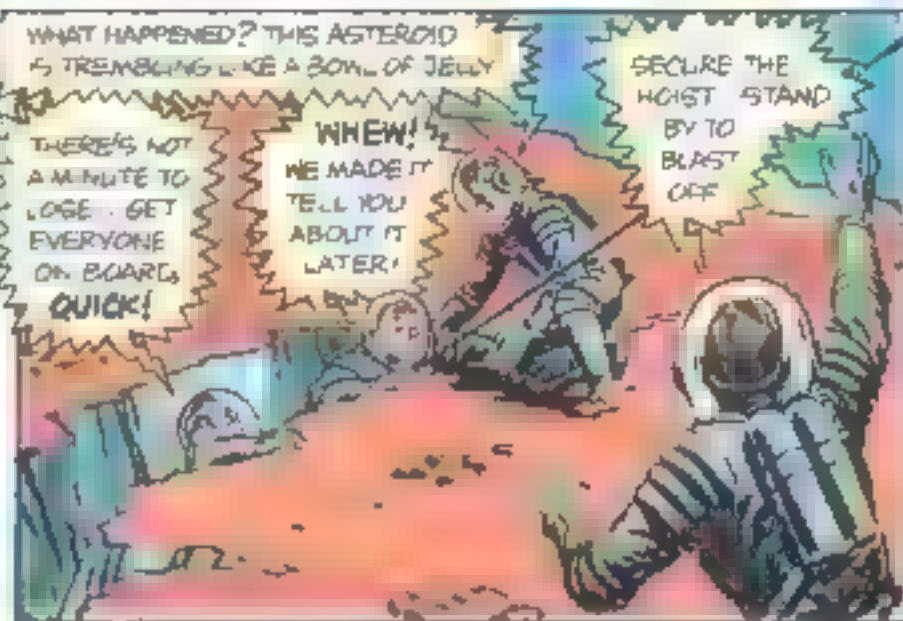
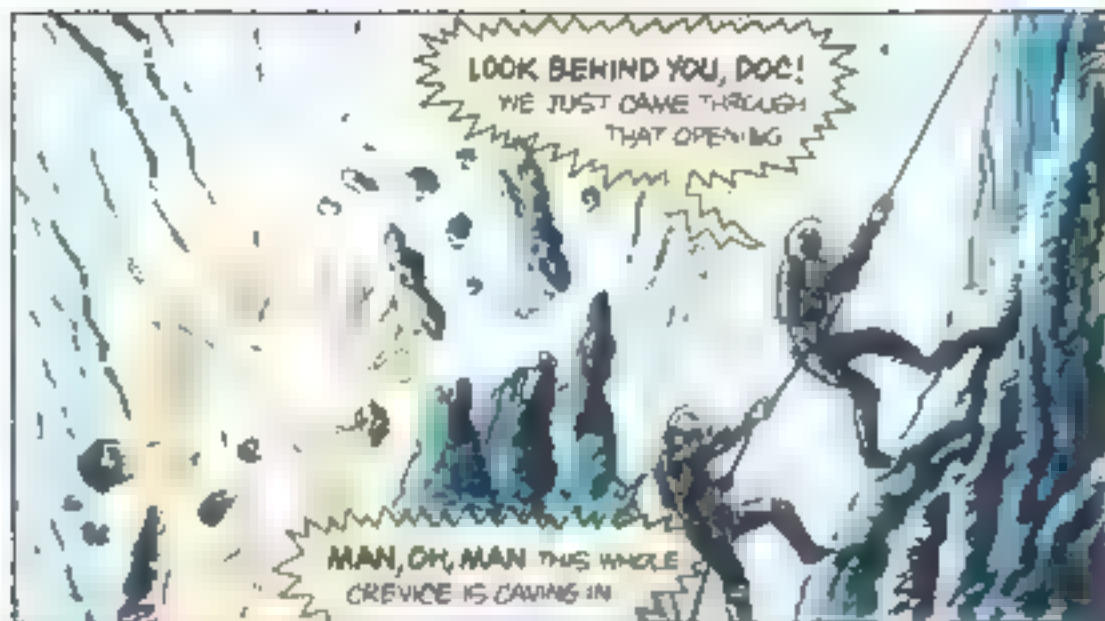
SOMETHING BIG IS GOING ON DOWN THERE. I CAN FEEL THE SURFACE SHAKING

DOC'S EMERGENCY CALL BUTTER IS ON STEADILY, BUT I CAN'T GET ENOUGH VOICE!



AND FAR DOWN BELOW

HERE'S THE CABLE WE'LL BOTH HOOK ON TO IT. HOPE THE CREW IS STANDING BY TO MAN IT



SPACE CONQUERORS!

BY AL STENZEL

FROM ITS STATION, FAR OUT IN SPACE, A SPACE GUARD CUTTER IS DISPATCHED IN RESPONSE TO AN URGENT CALL FOR HELP FROM A DISABLED SPACE FREIGHTER. THE LAST FRANTIC MESSAGE RECEIVED BEFORE CONTACT WAS LOST STATED THE FREIGHTER WAS PLUNGING TOWARD THE SURFACE OF VENUS!

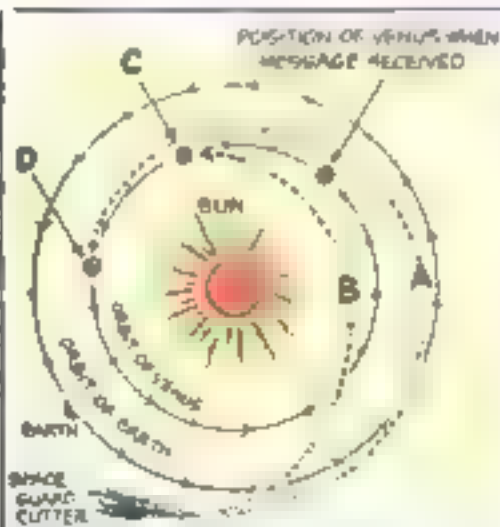
PRIORITY MESSAGE
PROCEED AT BEST SPEED
URGENT. RENDER ALL
ASSISTANCE!

ALL HANDS
STRAP DOWN.
FULL ROCKETS
FOR THREE
MINUTES!

SEND
MESSAGE TO
BASE
PROCEEDING
ON EMERGENCY
COURSE
FLANK SPEED

THIS COURSE WILL
TAKE US DANGEROUSLY
CLOSE TO THE SUN'S
PULL, SIR.

WE'VE GOT TO
CHANCE IT! THAT
PULL WILL GIVE US
ADDED SPEED BUT
IT'S A RISK I KNOW.
ONE SLIP IN OUR
CALCULATIONS AND
WE'LL BE BURNED
TO A CINDER!



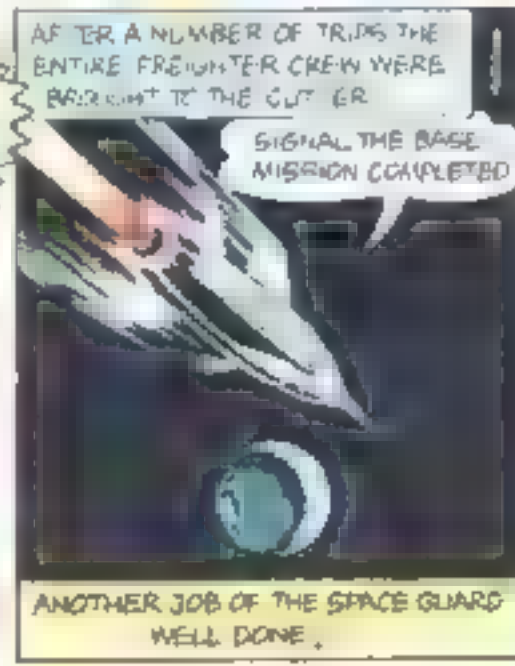
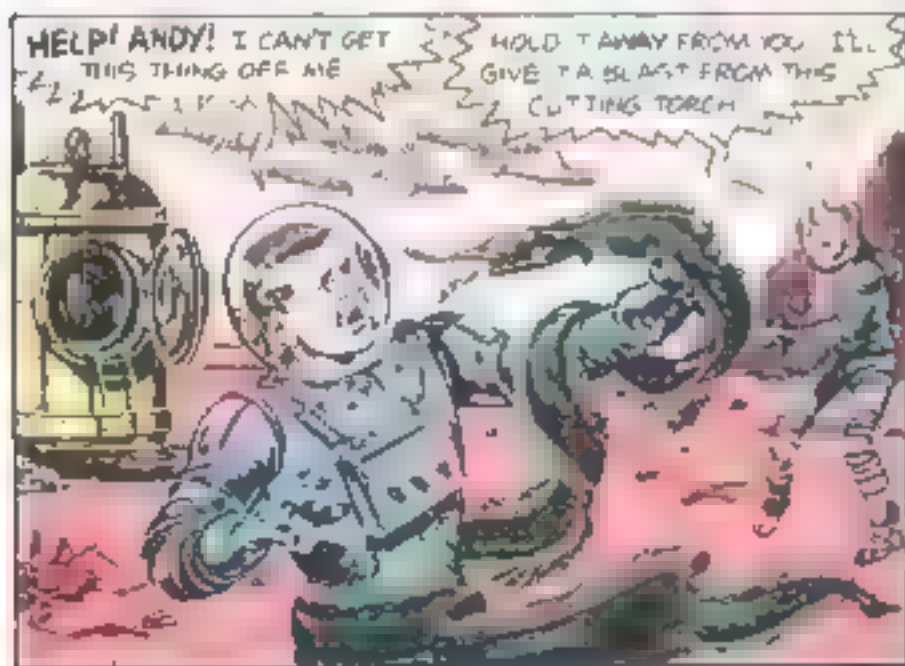
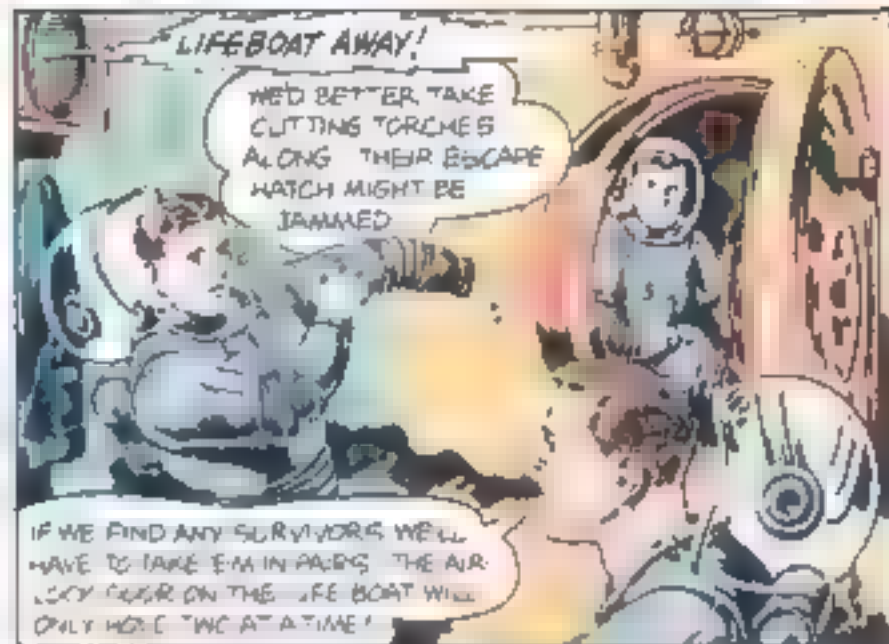
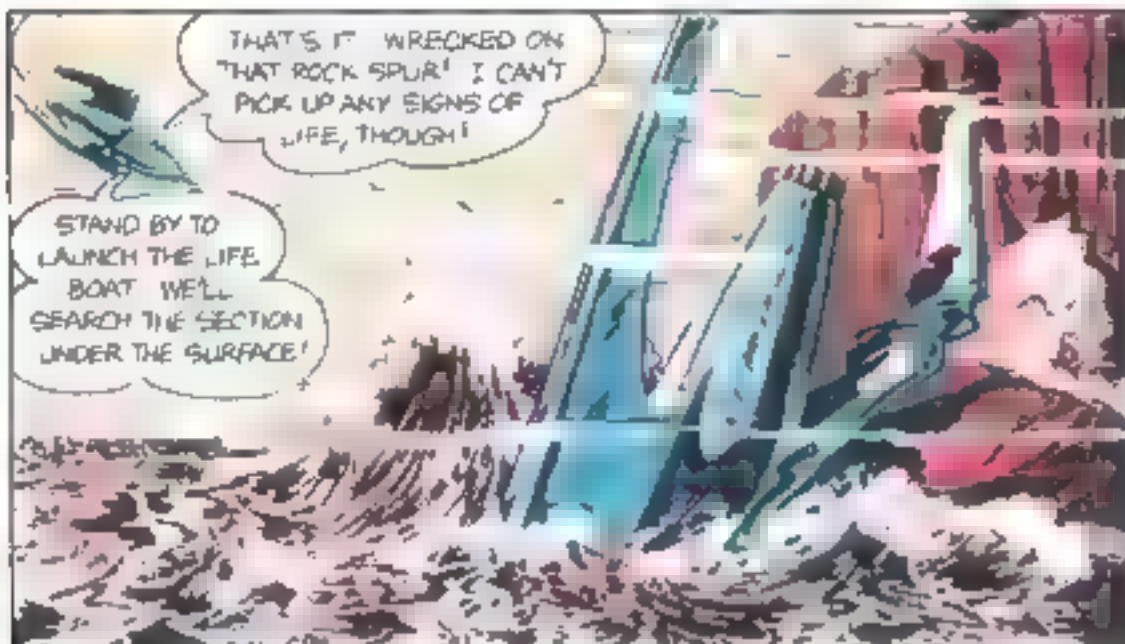
A - SAFE COURSE - WILL REACH
TARGET AT POSITION D
B - EMERGENCY COURSE - WILL REACH
TARGET AT C

THE SHIP'S CUTTER SKIN IS
NEAR THE MELTING POINT ON
THE SUN SIDE, SIR!

HOLD HER STEADY ON THE
COURSE - THE NEXT FEW
MINUTES WILL TELL

WE MADE IT! WHEN!
THAT WAS CLOSE, SIR
BUT HERE WE ARE
OVER VENUS!

THIS PLANET'S SO HIDDEN
IN MIST EVEN THE TELEVISION
IS BLURRED. LOOK, SIR
THAT MUST BE THE
FREIGHTER!



SPACE CONQUERORS!

BY AL STENZEL

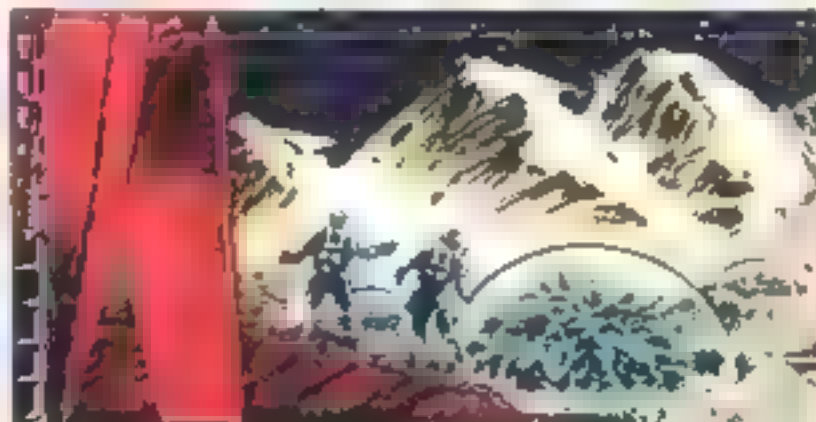
TO DISCOVER IF THERE IS ANY FORM OF LIFE ON THE MOON, TWO EARTH ECOLOGISTS* SEARCH THE UNEXPLORED LUNAR REGION.
*PLANT ECOLOGY: STUDY OF THE SPECIAL RELATIONSHIP BETWEEN PLANTS AND THEIR ENVIRONMENT.



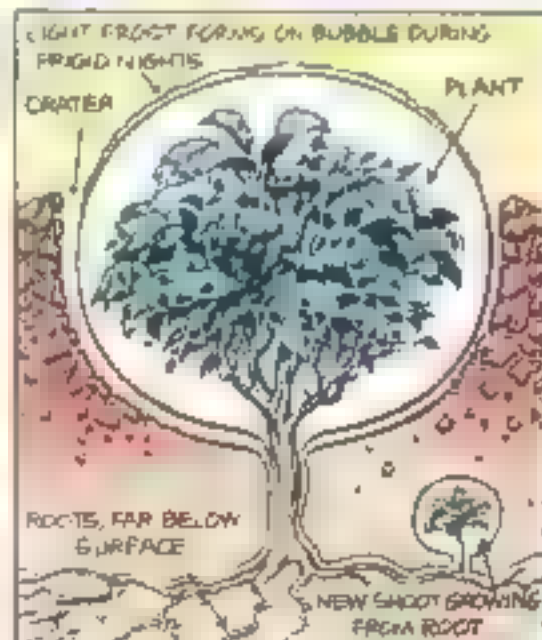
SKIMMING LOW OVER THE SURFACE THEY SEE AN AMAZING SIGHT. THE VALLEY FLOOR IS POCK-MARKED WITH CRATERS OUT OF WHICH SWELL HUGE TRANSPARENT BUBBLES! INSIDE EACH BUBBLE CAN BE SEEN A THICK TANGLE OF PALE GREEN FOLIAGE!



"A LIVING ORGANISM IN ITS OWN BUBBLE!" EXCLAIMS ONE. "REMINDS ME OF THE LITTLE SPIDER ON EARTH THAT CARRIES ITS OWN BUBBLE OF AIR WITH IT UNDER WATER."



IN AMAZEMENT THEY STARE AT ONE OF THE SHIMMERING GLOBES. IT IS COMPOSED OF A GELATINOUS SUBSTANCE, SECRETED BY THE PLANT, FORMING AN AIRTIGHT SHIELD WHICH PROTECTS THE PLANT FROM THE MOON'S TERRIFIC TEMPERATURE CHANGES. A REMARKABLE EXAMPLE OF ADAPTATION TO ENVIRONMENT!





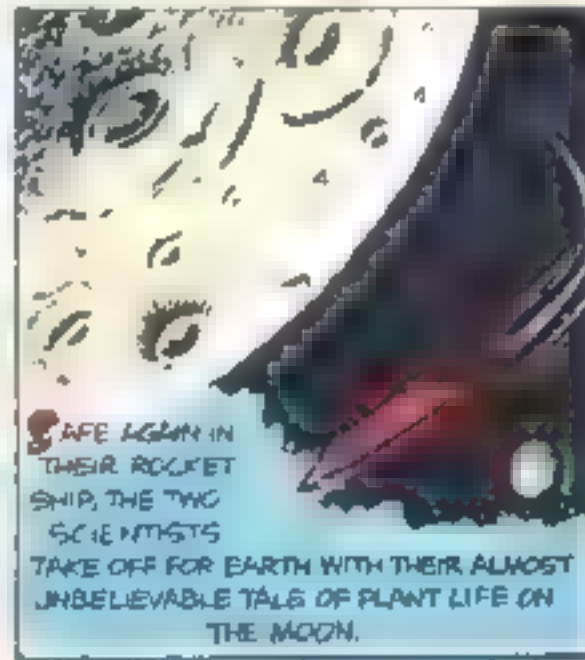
LEANING FAR OVER FOR A CLOSER LOOK ONE OF THE SCIENTISTS SLIPS! ATTEMPTING TO REGAIN HIS BALANCE HE PUSHES AGAINST THE QUIVERING GLOBE BUT THE JELLY-LIKE SUBSTANCE OFFERS NO RESISTANCE AND HIS HEAVILY WEIGHTED BODY COOKES COMPLETELY THROUGH THE BUBBLE INTO THE HEART OF THE EVIL-LOOKING PLANT.



HORRIFIED, HIS PARTNER DRAWS A KNIFE TO SAVE HIS UNFORTUNATE COMPARE. THE KEEN BLADE QUICKLY SLICES GREAT CHUNKS OUT OF THE GELATINOUS MASS.



ONCE THE PRESSURE WAS RELEASED FROM INSIDE THE BUBBLE THE ENTIRE PLANT COLLAPSED, FREEING THE TRAPPED EARTH-MAN, WHO QUICKLY SCRAMBLED OUT OF THE CRATER WITH THE AID OF HIS PARTNER.



SAFE AGAIN IN THEIR ROCKET SHIP, THE TWO SCIENTISTS TAKE OFF FOR EARTH WITH THEIR ALMOST UNBELIEVABLE TALE OF PLANT LIFE ON THE MOON.

SPACE CONQUERORS!

SPEEDING THROUGH SPACE ON THE WAY TO A DISTANT WORLD, A LECTURER ON BOARD A GIANT SPACELINER BREAKS THE MONOTONY OF THE LONG VOYAGE WITH A MOTION PICTURE SHOW.

"THIS FILM" EXPLAINS THE LECTURER, "SHOWS THE FIRST FLIGHT OF A POWERED FLYING MACHINE."



AND AS THE SCREEN COMES TO LIFE THESE SPACE TRAVELERS OF THE FUTURE SEE THE STORY OF EVENTS WHICH TOOK PLACE HUNDREDS OF YEARS BEFORE.



"TWO BROTHERS NAMED ORVILLE AND WILBUR WRIGHT" BEGAN THE VOICE ON THE FILM'S SOUND TRACK "WERE UNFURLING GLIDER ENTHUSIASTS IN A D 1901."

ON THE SAND DUNES OF KITTY HAWK, NORTH CAROLINA THEY MADE THEIR FIRST SUCCESSFUL GLIDER FLIGHT."



"RETURNING TO THEIR BICYCLE SHOP IN DAYTON, OH., THEY PONDERED ON THE PROBLEM OF MAKING A GLIDER THAT COULD BE STEERED, AND THE NEXT YEAR AT KITTY HAWK..."



"WITH THE ADDITION OF A MOVABLE TAIL THE GLIDER COULD BE STEERED TO THE RIGHT OR LEFT AT THE PILOT'S WILL."

A photograph of a man and a woman standing in a room. The man is on the left, wearing a dark jacket and a light-colored shirt. The woman is on the right, wearing a light-colored jacket and a dark skirt. They are standing in front of a large window with a lamp on a table to the right.

THE WRIGHT BROTHERS' LAUNCHING DEVICE

WEIGHT

HOOK ATTACHED TO PLANE

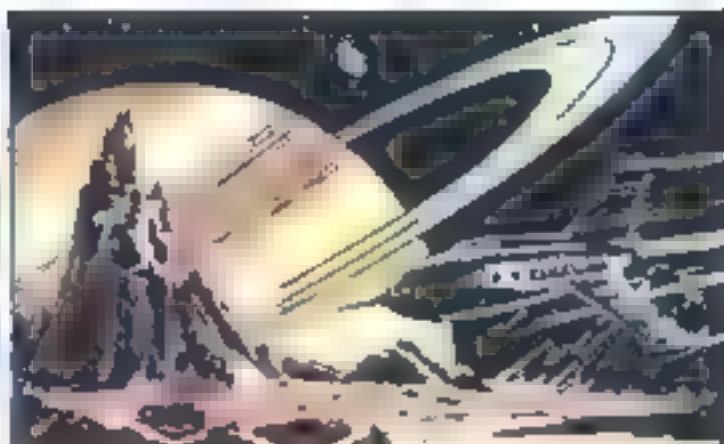
CABLE

AS THE FILM ENDS A SPONTANEOUS CHEER
RISES FROM THE SPACE TRAVELING AUDIENCE
IN TRIBUTE TO THE PIONEERS OF AVIATION...
ORVILLE AND WILBUR WRIGHT!

SPACE CONQUERORS!

By AL STENZEL

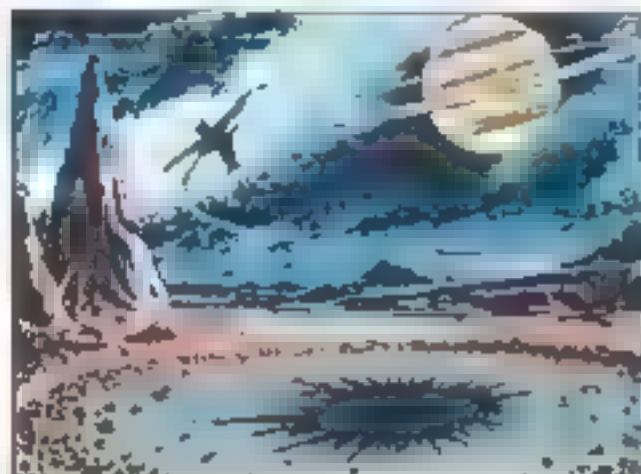
ORDERED TO SEARCH THE NINE MOONS OF SATURN FOR A SPACE-PIRATE'S LAIR, THE SPACE GUARD ROCKET-CUTTER "CAMBRIA" CIRCLES AROUND SATURN'S SMALLEST AND NEAREST MOON, MIMAS (ONLY 200 MILES IN DIAMETER).



FROM MIMAS, WHICH IS 15,000 MILES FROM THE RINGED PLANET, THE SPACE GUARD CUTTER SEARCHES ENCELADUS, TETHYS AND DIONE. THEY FIND NO EVIDENCE OF LIFE ON ANY OF THESE SATELLITES... BUT 760,000 MILES FROM SATURN...



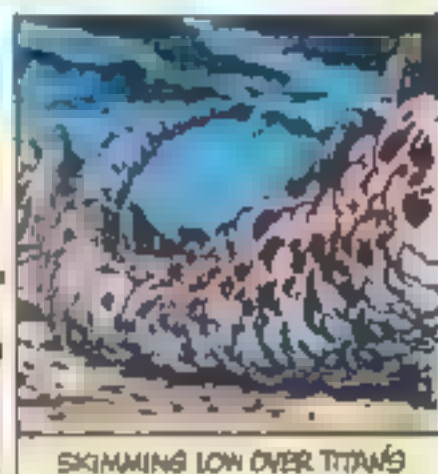
IN A HIDDEN VALLEY OF TITAN, THE LARGEST OF SATURN'S MOONS, THE VICIOUS SPACE PIRATES ANXIOUSLY WATCH THE PROGRESS OF THE SEARCH ON THEIR VISCO-RADAR SCOPE...



AND SET A TRAP TO LURE THE SPACE GUARD WITHIN RANGE OF THEIR DEADLY RAY GUNS. A BLACKENED AREA MADE TO LOOK AS THOUGH A ROCKET SHIP HAD BLASTED OFF.



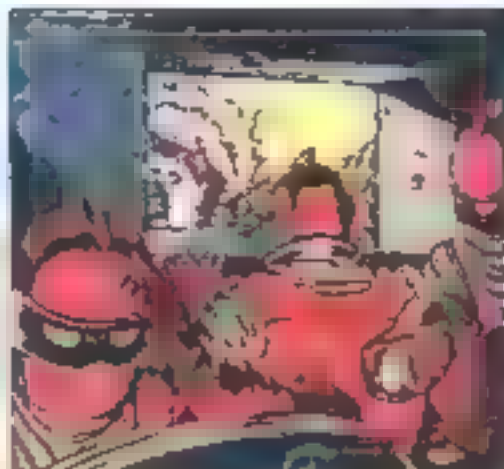
"IF A SHIP HAD LEFT TITAN WE WOULD HAVE PICKED IT UP ON OUR INSTRUMENTS," EXCLAIMS THE SPACE GUARD CAPTAIN. "THE PIRATES ARE STILL THERE, PROBABLY WAITING FOR US TO LAND, THINKING THEY HAVE GONE. WE'LL FOOL THEM!"



SKIMMING LOW OVER TITAN'S RUGGED SURFACE THE CUTTER THROWS DOWN A HEAVY SMOKE SCREEN WHICH HIDES THE DESCENT OF A LANDING PARTY.



BEFORE THE SMOKE SCREEN LIFTS, THE SPACE GUARD QUICKLY SET UP A STRANGE MACHINE NEAR WHERE THEY BELIEVE THE SPACE PIRATES ARE HIDING. THEN, USING THEIR SHOULDER POCKETS, THE LANDING PARTY DISAPPEARS IN THE CLIFFS TO WATCH.



NOW, THE PIRATES IN THEIR SECRET LAIR, ARE BUZZING LIKE ANGRY HORNETS THAT STRANGE MACHINE IS JAMMING THEIR INSTRUMENTS!



"DESTROY IT!" SHOUTS THE PIRATE CHIEF AND A BARRAGE OF DEADLY RAYS POURS FROM A NEARBY CLIFF. THIS IS JUST WHAT THE SPACE GUARDS WANT. THE PIRATES HAVE DISCLOSED THEIR HIDE-AWAY!



THE LANDING PARTY RADIOS THE LOCATION OF THE PIRATE'S BASE AND THE CUTTER ROARS OVER, DROPPING AN AIDM-THERMO BOMB IN A DIRECT HIT. NOW THE WAITING SPACE GUARDSMEN ROCKET INTO ACTION...



ZOOMING TO THE NOW EXPOSED HIDE-OUT WITH THEIR RAY GUNS BLAZING, THE FIGHT IS FIERCE BUT SHORT...THE EXPOSED PIRATES ARE NO MATCH FOR THE GUARDMEN!



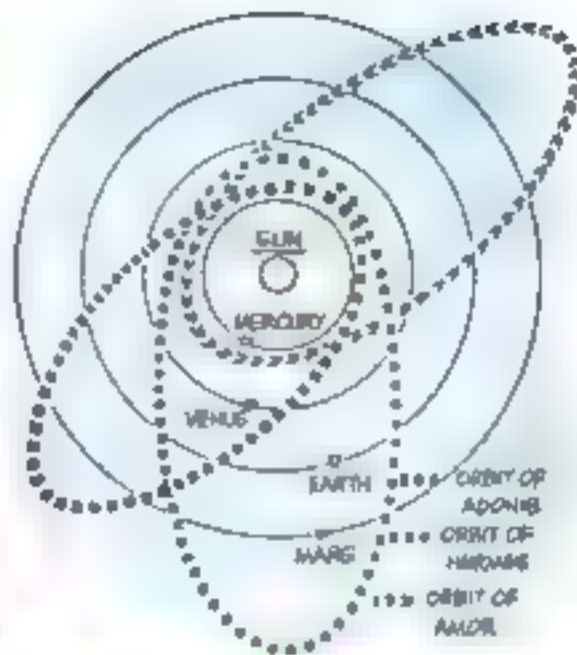
THE SPACE GUARD CUTTER LANDS ON TITAN'S FROZEN SURFACE AS SOON AS THE PIRATE'S LAIR HAS BEEN DESTROYED. ANOTHER TOUGH ASSIGNMENT "WELL-DONE" BY THE SPACE GUARD!

SPACE CONQUERORS!

By
Al Gropel

ON THREE PLANETIDS WHOSE ORBITS PASS BETWEEN THE EARTH AND THE SUN THE INTER-PLANETARY DEPARTMENT OF CELESTIAL NAVIGATION HAD ESTABLISHED RADIO BEACON STATIONS TO GUIDE SPACE SHIPS ON THEIR PROPER COURSE.

FOR NEARLY A YEAR, HENRY FROST HAD LIVED ON HERMES, ONE OF THE THREE, AS KEEPER OF ITS POWERFUL BEACON WHOSE BEAM KEPT THE SHIFT SPACE SHIPS ON THEIR COURSE THROUGH THE VOID.

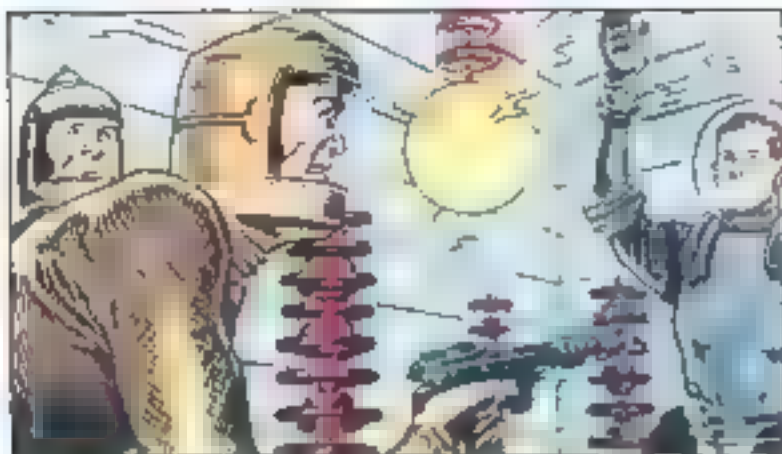


IT WAS A LONELY LIFE. MUCH THE SAME AS EARTH LIGHT-HOUSE KEEPERS LIVED EARLY IN THE 20TH CENTURY. SUDDENLY HENRY FROST'S FACE LIGHTED WITH JOY. ON HIS RADAR A SHIP APPEARED COMING CLOSER AND CLOSER. HIS RELIEF MUST BE ARRIVING EARLY.

QUICKLY DONNING HIS SPACE SUIT HE HURRIED OUTSIDE TO GREET THIS WELCOME BREAK IN HIS LONG MONOTONOUS TOUR OF DUTY.



THE CUSHIONING BLASTS OF THE ROCKETS HAD HARDLY DIED WHEN TWO SPACE-SUITED FIGURES DESCENDED FROM THE SHIP, THEIR RAY GUNS EVILLY POINTED AT THE SHOCKED STATION KEEPER.



THIS TURN OF EVENTS WAS SO UNEXPECTED THAT BEFORE HENRY FROST COULD GATHER HIS WITS HE WAS FORCED TO LEAD THE WAY TO THE STATION'S HUGE POWER PLANT. INSIDE ONE OF THE STRANGERS GROWLED, 'SHOW US HOW TO DEFLECT THIS BEAM AND NO TRICKS!'

SUDDENLY IT WAS ALL CLEAR TO HENRY. THE GOLD-LADEN PAY SHIP HEADING FOR THE MARTIAN MARS WOULD SOON PASS THIS PLANET... DEFENDING ON HIS BEHALF TO KEEP IT ON ITS PROPER COURSE.



THESE MEN INTENDED TO SEND IT HURLING TO THE GROUND IN THE DESERTED BELT WHERE THEY COULD SALVAGE ITS GOLDEN TREASURE.



EVERYTHING HAD HAPPENED SO SWIFTLY THEY HADN'T REMOVED THEIR SPACE SUITS. EVEN THOUGH THEY WERE NOW INDOORS. NOTING THAT THE ARMED STRANGERS WERE WEARING METAL-MESH SPACE SUITS, WHEREAS HIS WAS OF SPECIAL RUBBER, A PLAN FORMED IN HENRY'S MIND.



'DEFLECTING THE BEAM ISN'T EASY,' HE EXPLAINED, HOPING THEY WOULD BELIEVE HE WAS WILLING TO OBEY THEM. 'I'LL HAVE TO SHUT OFF THE MAIN SWITCH.' AS THE TWO MEN MOVED CLOSE TO THE MAIN POWER LINE TO WATCH HIM...

HENRY WENT QUICKLY TO A DIAL WHICH SENT A TERRIFIC SURGE OF ELECTRICITY INTO THE LINES. VIBRATING AS ~~THE BEAM~~ LEAPED FROM THE INSULATORS TO THE METAL-CLAD FIGURES FRIED IN THEM IN A SEARING BLUE FLAME.



BEFORE THE TWO COULD RECOVER FROM THE PARALYZING ELECTRIC SHOCK, HENRY RUSHED OUTSIDE AND DESTROYED THEIR SPACE SHIP. RETURNING, HE HELD THE TWO CAPTIVE UNTIL HIS RELIEF ARRIVED.

SPACE CONQUERORS!

by Al Stenze

WORD OF RICH URANIUM DEPOSITS ON THE PLANET MARS HAS BEEN FLASHED TO EARTH. IMMEDIATELY THE RACE FOR POSSESSION OF THE VALUABLE FIELDS IS ON.



ON PHOBOS, THE NEAREST OF MARS TWO MOONS, THE PROSPECTORS WHO HAD FIRST DISCOVERED THE URANIUM WATCH AS RIVAL SPACE SHIPS FLASH BY.



FRANTICALLY SCIENTISTS FROM MANY NATIONS ON EARTH SEARCH THE SURFACE OF THE RED PLANET. BUT TO NO AVAIL. NO TRACE OF URANIUM CAN BE FOUND. THEN, ONE GROUP HITS UPON THE REASON.

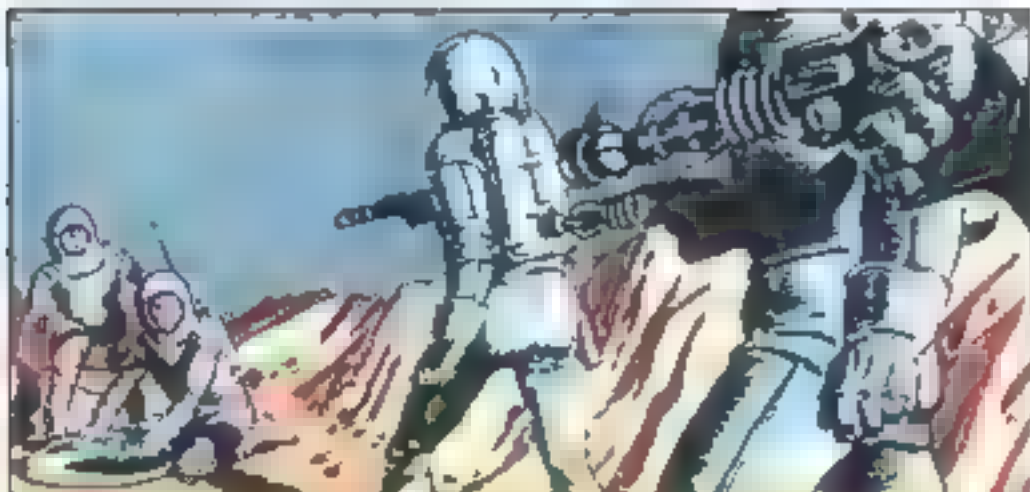


THEIR INSTRUMENTS REGISTER A HIGH CONCENTRATION OF ORE AND THEN DROP TO ZERO. "THE URANIUM IS ON PHOBOS, NOT HERE," EXCLAIMS ONE. "WE GO THERE," ORDERS THE COMMANDER.

TWO SMALL MOONS REVOLVE AROUND THE PLANET MARS. EACH ABOUT $\frac{1}{4}$ THE SIZE OF THE EARTH'S MOON.



DEIMOS WOULD APPEAR JUST AS A BRIGHT STAR FROM THE SURFACE OF MARS. PHOBOS, HOWEVER, IS SO CLOSE THAT IT WOULD RISE EVERY 11 HOURS AND BE IN THE MARTIAN SKY FOR 4 HOURS AND 20 MINUTES EACH TIME!



LANDING ON PHOBOS, THEY IGNORE THE PROTESTS OF THE TWO ORIGINAL DISCOVERERS. "WE RECOGNIZE NO PRIOR CLAIMS," THEY SNARLED "GET OFF OR BE KILLED AT ONCE!" AND BACKED THEIR COMMAND WITH CRAWN RAY GUNS.

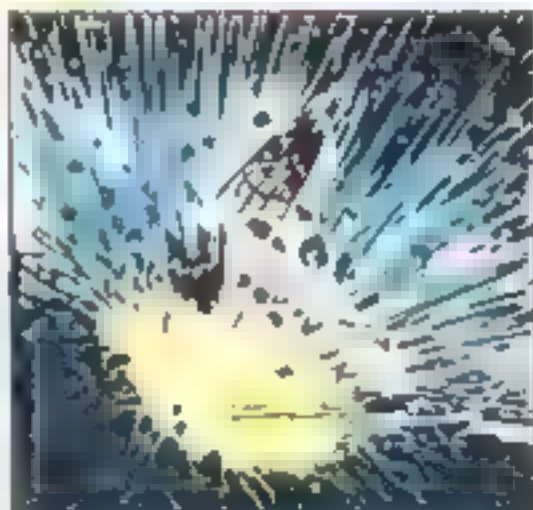
BUT, UNKNOWN TO THE CRAWN JUMPERS, THE TWO PROSPECTORS HAD ALSO FOUND A NEW ELEMENT ON PHOBOS **THERMIUM!** WHICH THEY HAD TESTED AND FOUND TO BE STRANGELY UNSTABLE WHEN SUBJECTED TO CERTAIN ELECTRICAL IMPULSES.



AS THE TWO STARTED FOR THEIR SHIP, THEY SAW THE ROBBER CREW EXAMINING A HUGE PILE OF ORE, WONDERING WHAT IT WAS.



REACHING THE SHIP, THEY QUICKLY SET UP AN ELECTRO-BEAM AMPLIFIER, WIRED TO THEIR SHIP'S POWERFUL GENERATOR, AND TRAINED IT ON THE ORE... **THE DANGEROUSLY UNSTABLE THERMIUM!**



THE CAREFULLY ADJUSTED ELECTRICAL IMPULSE STRIKES THE EXPOSED PILE OF ORE!

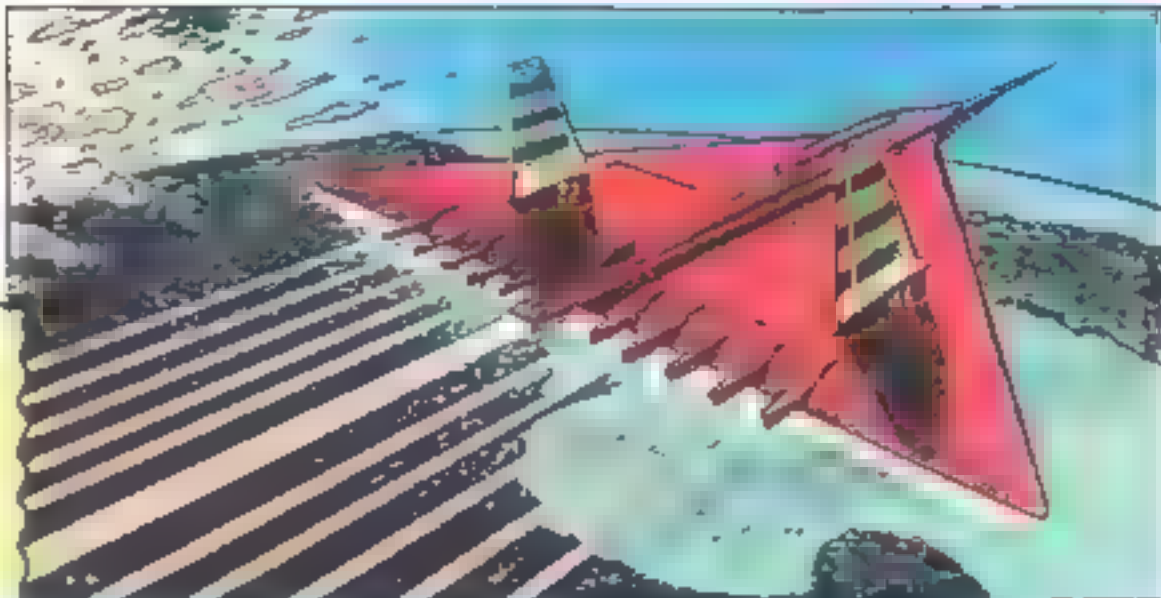


ATTRACTED BY THE TERRIBLE EXPLOSION, A SPACE PATROL CRUISER LANDS ON PHOBOS. AFTER EXAMINING ALL THE FACTS, THE TWO MEN ARE ACQUITTED OF ALL CHARGES AND THEIR CLAIM TO THEIR RICH FIND IS OFFICIALLY REGISTERED.

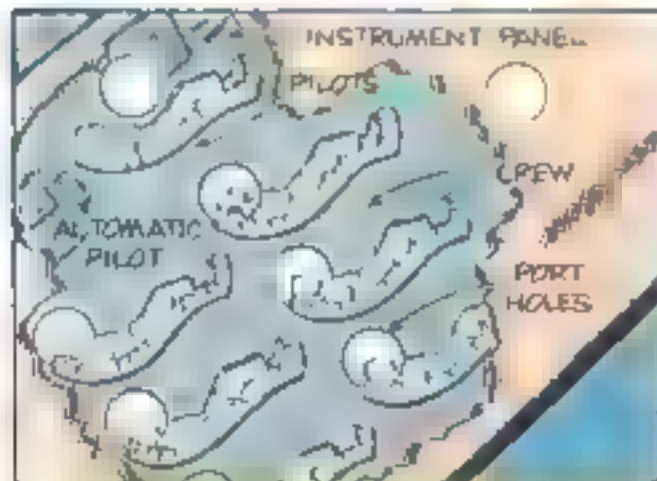
SPACE CONQUERORS!

by AL STENZEL

THE FIRST STEP IN MAN'S CONQUEST OF SPACE WILL BE THE CONSTRUCTION OF A SPACE STATION REVOLVING AROUND THE EARTH ON A REGULAR, FIXED ORBIT.



FROM ITS HOME BASE ON EARTH A HUGE DELTA WING ROCKET IS LAUNCHED TOWARD THE PRE-DETERMINED LOCATION OF THE SPACE STATION.



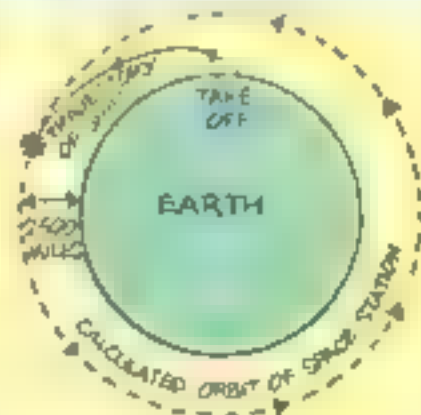
TO PROTECT THE CREW FROM THE TERRIFIC ACCELERATION THEY ARE STRAPPED INTO CONTOUR COUCHES. AN AUTOMATIC PILOT IS IN CONTROL OF THE SHIP ALL DURING ITS TAKE-OFF.

WITHIN A FEW MINUTES THE SHIP HAS REACHED A VELOCITY OF 8000 FEET PER SECOND AND A HEIGHT OF 135 MILES.



THEN, THE ROCKETS ARE AUTOMATICALLY SHUT OFF AND THE SHIP IS NOW IN FREE FLIGHT, COASTING TOWARD ITS TARGET IN SPACE 2500 MILES FROM EARTH!

HERE ROCKET REACHES ORBITAL PATH



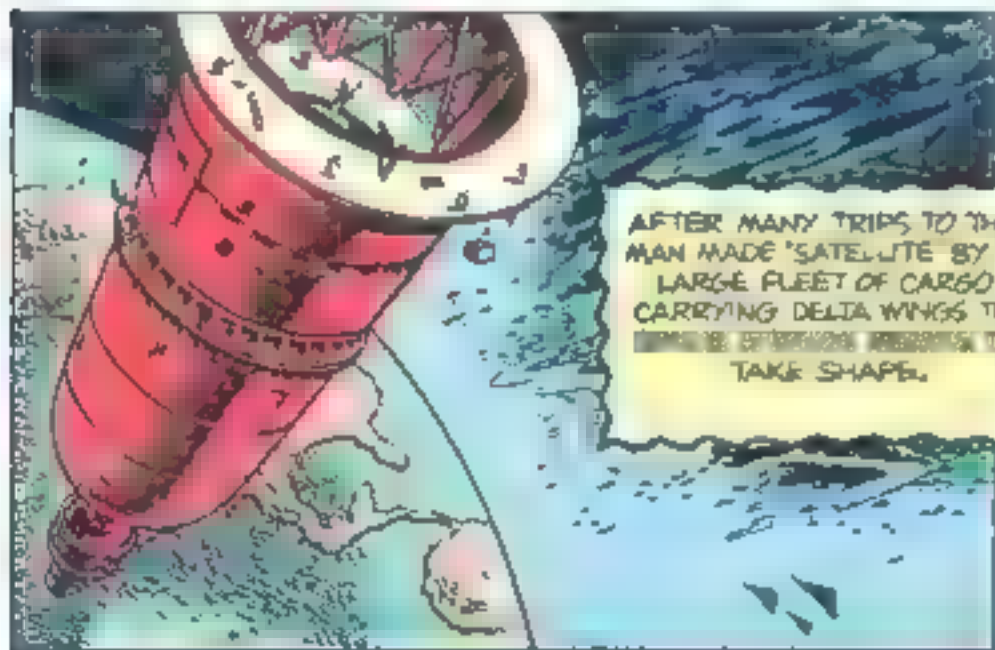
AT 2500 MILES THE SHIP HAS BEEN SLOWED BY EARTH'S GRAVITATIONAL PULL, A SHORT SPURT ON THE ROCKETS SETS IT ON THE CORRECT ORBITAL SWING AROUND THE EARTH WHICH IT CAN NOW MAINTAIN WITH NO FURTHER USE OF POWER.



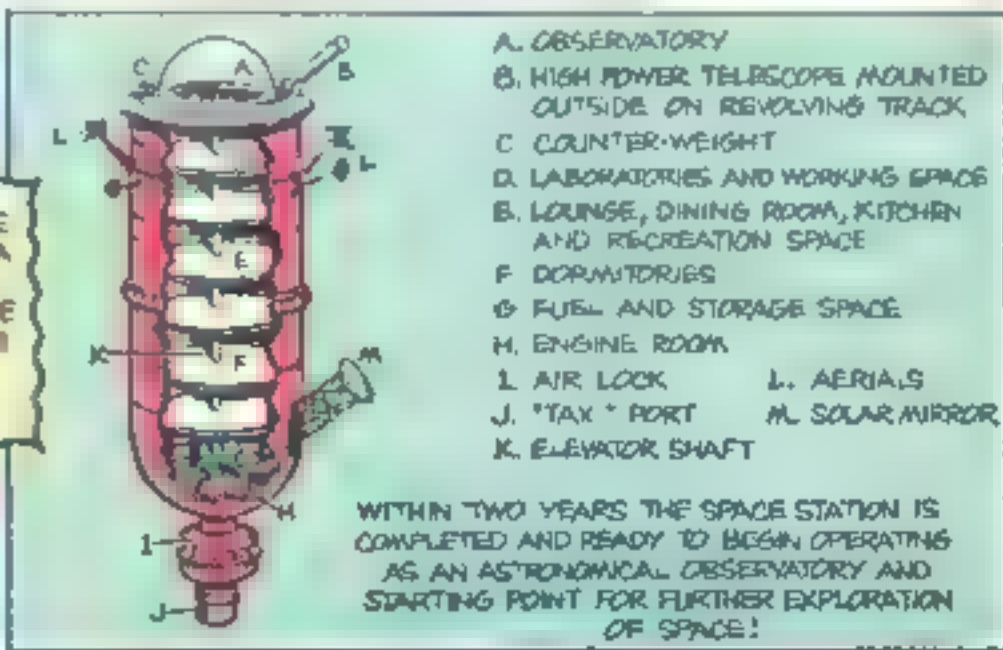
AT THIS POINT THE CREW IN THEIR SPACE SUITS BEGIN UNLOADING THE EQUIPMENT AND PRE-FABRICATED PARTS TO CONSTRUCT THE SPACE STATION



BECAUSE THEIR SPEED AND THE EARTH'S GRAVITATIONAL PULL ARE NOW EQUALIZED EVERYTHING IS WEIGHTLESS AND THE HUGE PARTS ARE HANDLED WITH EASE



AFTER MANY TRIPS TO THE MAIN MADE 'SATellite' BY A LARGE FLEET OF CARGO-CARRYING DELTA WINGS THE REMAINING EXPANSION BEGINS TO TAKE SHAPE.



SPACE CONQUERORS!

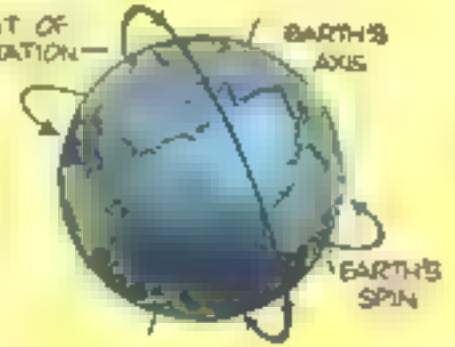
BY AL STENZEL



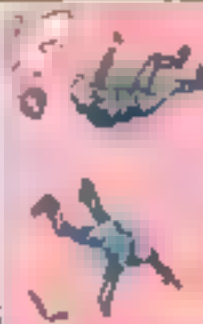
ASTRO-SCIENTISTS BELIEVE THAT BEFORE SPACE TRAVEL CAN BE A PRACTICAL REALITY A STATION MUST BE BUILT IN SPACE REVOLVING AROUND THE EARTH ON A FIXED ORBIT AT A VELOCITY THAT WILL EQUALIZE THE EARTH'S GRAVITATIONAL PULL. THIS WILL KEEP THE STATION CONSTANTLY AT ITS PROPER DISTANCE.

ORBIT OF SPACE STATION—

EARTH'S AXIS

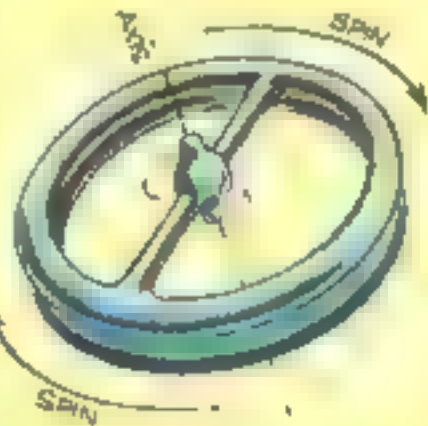


HOWEVER, TWO BIG PROBLEMS MUST BE SOLVED BEFORE WE WILL BE ABLE TO SEE A SPACE STATION FLOATING IN SPACE AROUND OUR EARTH.



1. HOW TO OVERCOME WEIGHTLESSNESS, THAT IS GIVE THE SPACE STATION ITS OWN GRAVITATIONAL FIELD.

2. HOW TO KEEP THE STATION ON A FIXED ORBITAL PLANE (KEEP IT FROM FALLING BACK TO EARTH OR FLOATING OFF INTO SPACE).



IT HAS BEEN SUGGESTED THAT A SPACE STATION BUILT IN A 'DOUGHNUT' SHAPE WOULD SOLVE THE GRAVITATIONAL PROBLEM. THE STATION WOULD SPIN ON ITS OWN AXIS, THUS CREATING SYNTHETIC GRAVITY BY CENTRIFUGAL FORCE. THE 'PULL' REGULATED BY THE SPEED OF THE SPIN.

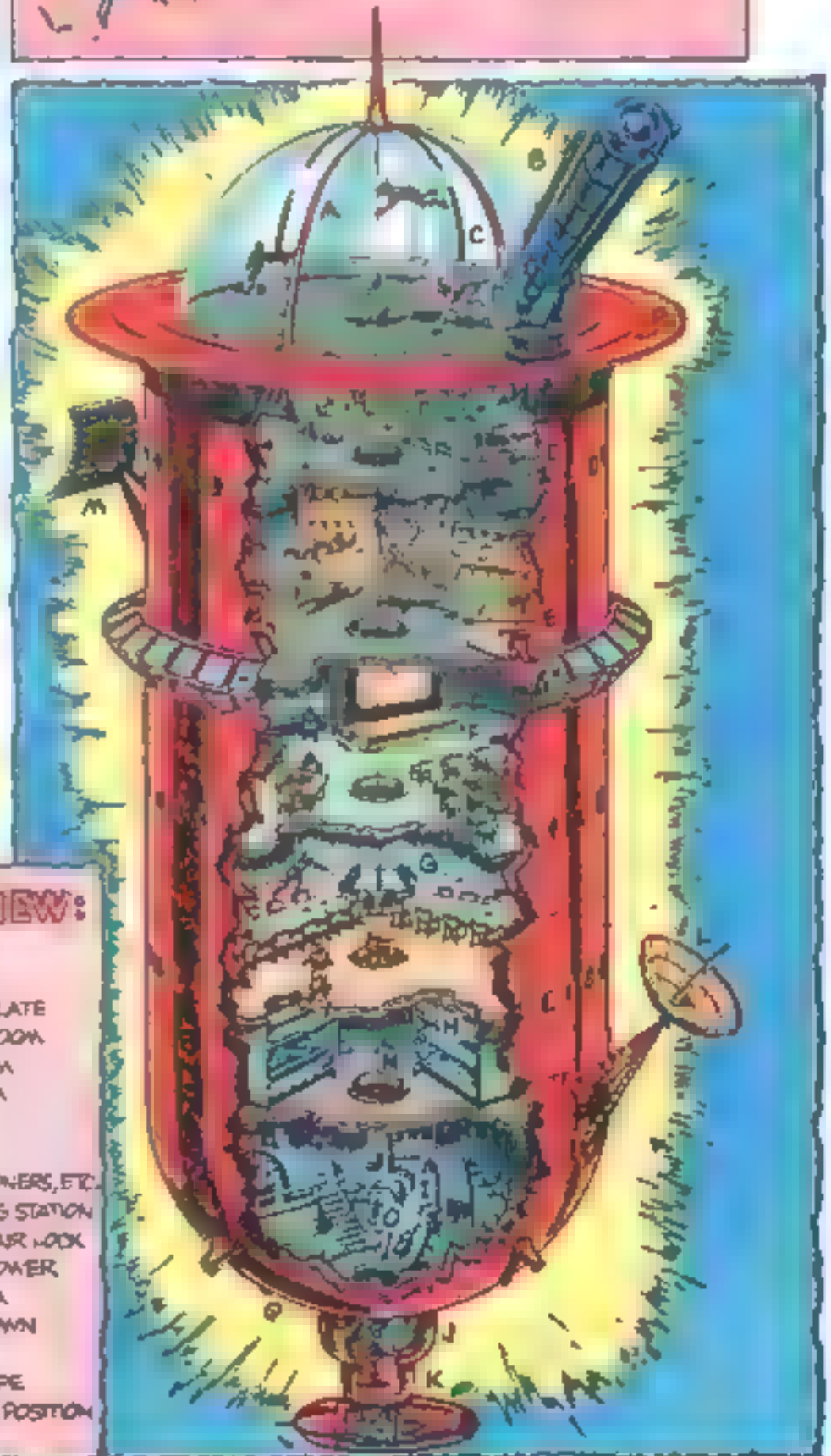
IF IT NOW COULD TELESCOPIC OBSERVATIONS BE MADE FROM THE RIM OF A WHEEL SPINNING AT THE RATE OF ABOUT ONE REVOLUTION EVERY TWENTY SECONDS?

OTHER AUTHORITIES BELIEVE THERE WILL BE NO NEED OF CREATING ARTIFICIAL GRAVITY ON THE SPACE STATION ONCE THE CREW BECOME ACCUSTOMED TO THE ODD FEELING OF 'WEIGHTLESSNESS' IT MIGHT BE MORE OF A CONVENIENCE THAN A HAZARD.

SINCE THERE IS NO AIR RESISTANCE IN SPACE THE SLIGHTEST PUSH WOULD START THE STATION DRIFTING. A SYSTEM OF ROCKET ENGINES WOULD BE NECESSARY TO AUTOMATICALLY RE-ADJUST ITS POSITION.

KEY TO SECTIONAL VIEW:

- A PLASTIC-DOMED OBSERVATORY
- B OUTSIDE 200 INCH TELESCOPE
- C ASTRONOMER AT ASTRO-IMAGE PLATE
- D TV, RADIO AND ASTRO-RADAR ROOM
- E SPACE STATION REGULATOR ROOM
- F LOUNGE AND RECREATION ROOM
- G GALLEY AND MESS HALL
- H SLEEPING QUARTERS
- I ENGINE ROOM BLOWERS, AIR CONDITIONERS, ETC.
- J AIR LOCK FOR ENTERING AND LEAVING STATION
- K SPACE TAXI DISCHARGING CREW IN AIR LOCK
- L SOLAR MIRROR FOR HEAT AND POWER
- M RADAR, RADIO AND TV ANTENNA
- N LIFE LINE FOR GOING UP OR DOWN
- O ENTRANCE MAIN HOLES
- P TRACK FOR REVOLVING TELESCOPE
- Q ROCKET ENGINES FOR CORRECTING POSITION



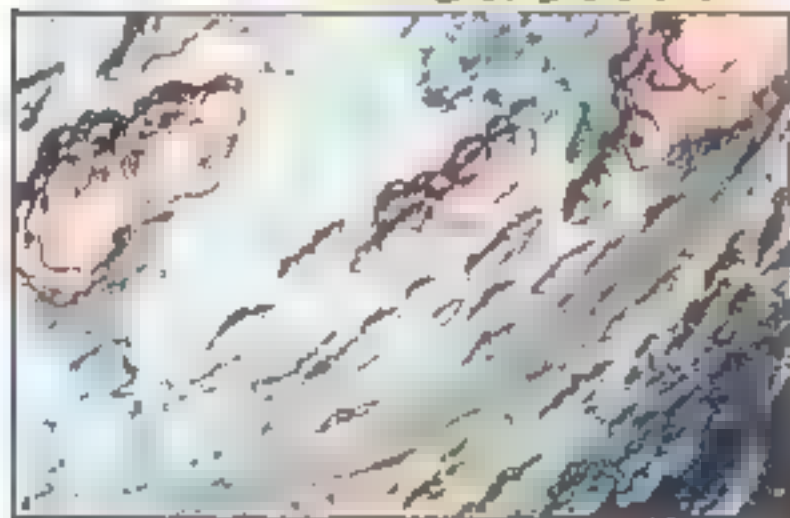
SPACE CONQUERORS!

MAN'S FIRST SPACE STATION HAS AT LAST BEEN COMPLETED 2500 MILES OUT FROM THE EARTH'S SURFACE. REVOLVING AT A SPEED SUFFICIENT TO EQUALIZE EARTH'S GRAVITATIONAL PULL THE STATION KEEPS ON ITS ORBIT MAKING A COMPLETE JOURNEY AROUND THE EARTH ONCE EVERY THREE HOURS!

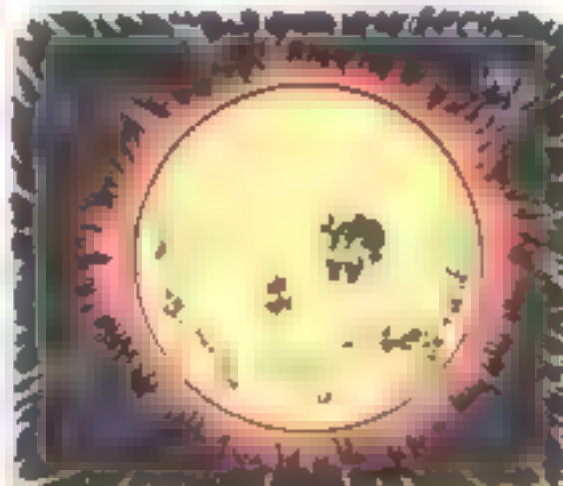
BY AL STENZEL



NOW, THE MANY EARTH SCIENTISTS ON BOARD SCAN THEIR INSTRUMENTS HOPING TO UNLOCK TERRESTRIAL AND STELLAR SECRETS WHICH HAVE BAFLED EARTHMEN SINCE THE BEGINNING OF TIME.



DELICATE METEOROLOGICAL INSTRUMENTS DETECT AND TRACK ATMOSPHERIC DISTURBANCES WHICH WILL AFFECT WEATHER CONDITIONS ON EARTH.



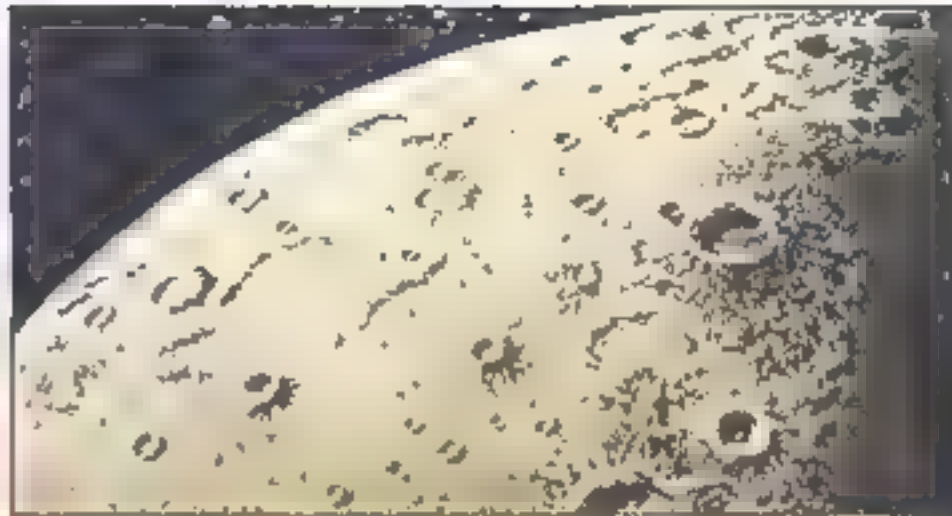
SUN SPOTS AND THEIR RELATIONSHIP TO EARTH'S WEATHER ARE STUDIED AND CHARTED. LONG RANGE WEATHER FORECASTING IS AT LAST A SUCCESSFUL REALITY!



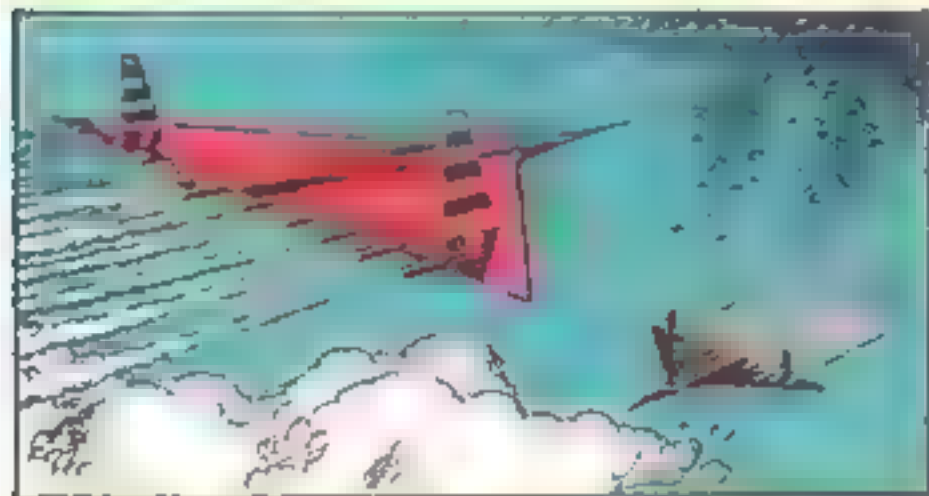
SNEAK ATTACKS BY ONE NATION UPON ANOTHER ARE NO LONGER POSSIBLE. ANY CONCENTRATION OF ARMED FORCES WOULD IMMEDIATELY BE DISCOVERED BY THE WATCHERS IN SPACE!



BECAUSE THERE IS NO ATMOSPHERE, CLOUDS OR DUST TO INTERFERE WITH THEIR OBSERVATIONS, THE ASTRONAUTS ARE ABLE TO PHOTOGRAPH THE HEAVENLY BODIES WITH EXCEPTIONAL CLARITY.



NEW CONSTELLATIONS ARE DISCOVERED. SURFACE DETAILS OF NEAR-BY PLANETS WHICH ARE HIDDEN FROM EARTH ASTRONOMERS ARE NOW REVEALED TO THE OBSERVERS ON THE SPACE STATION.



FAST, DELTA-NINE ROCKET SHIPS SHUTTLE BACK AND FORTH FROM SPACE STATION TO EARTH WITH SUPPLIES, RELIEF CREWS AND ...THE MATERIALS FOR THE CONSTRUCTION OF A SPACE SHIP TO EXPLORE THE MOON!

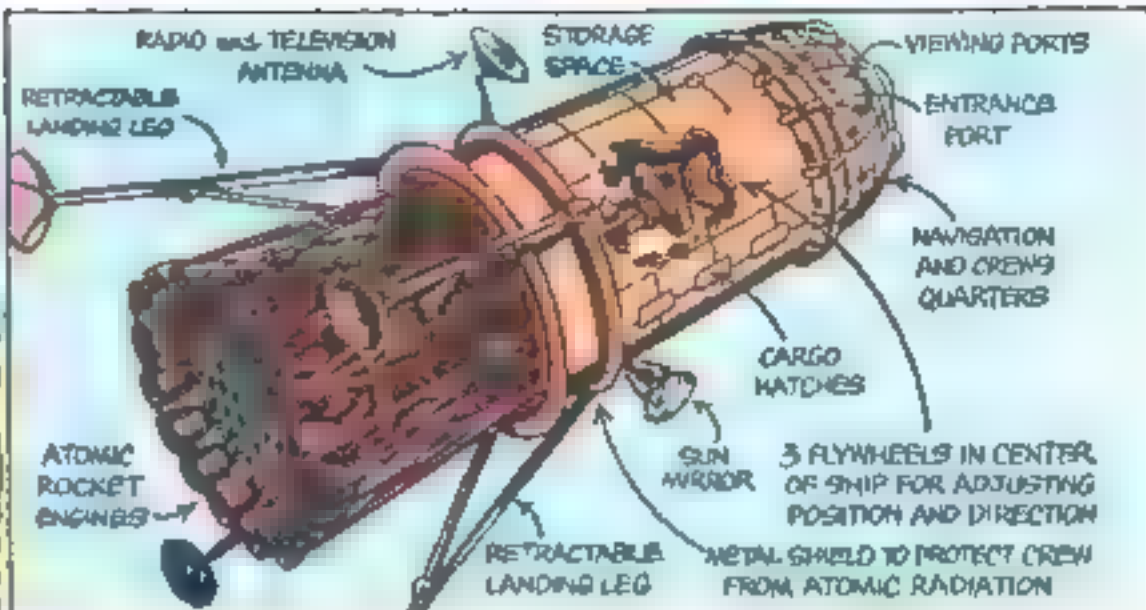


A SPACE SHIP STARTING ON ITS LONG VOYAGE TO THE MOON WILL NOT EXPEND MOST OF ITS FUEL OVERCOMING EARTH'S PULL WHEN LAUNCHED IN SPACE! SO THE WORK OF BUILDING THE SHIP NEAR THE SPACE STATION BEGINS AS SPACE-SUITED WORKMEN ASSEMBLE THE PREFABRICATED PARTS.

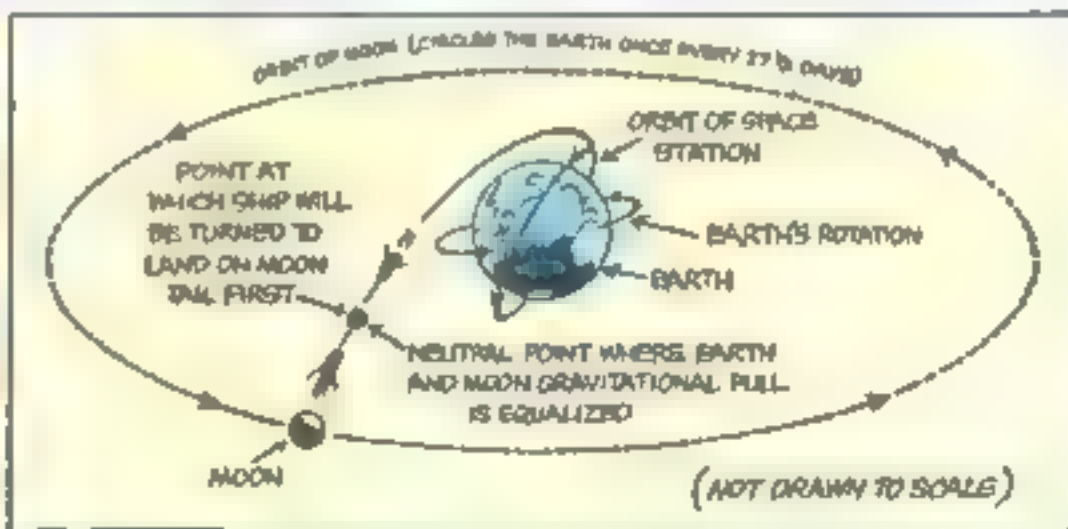
SPACE CONQUERORS!

BY AL STENZEL

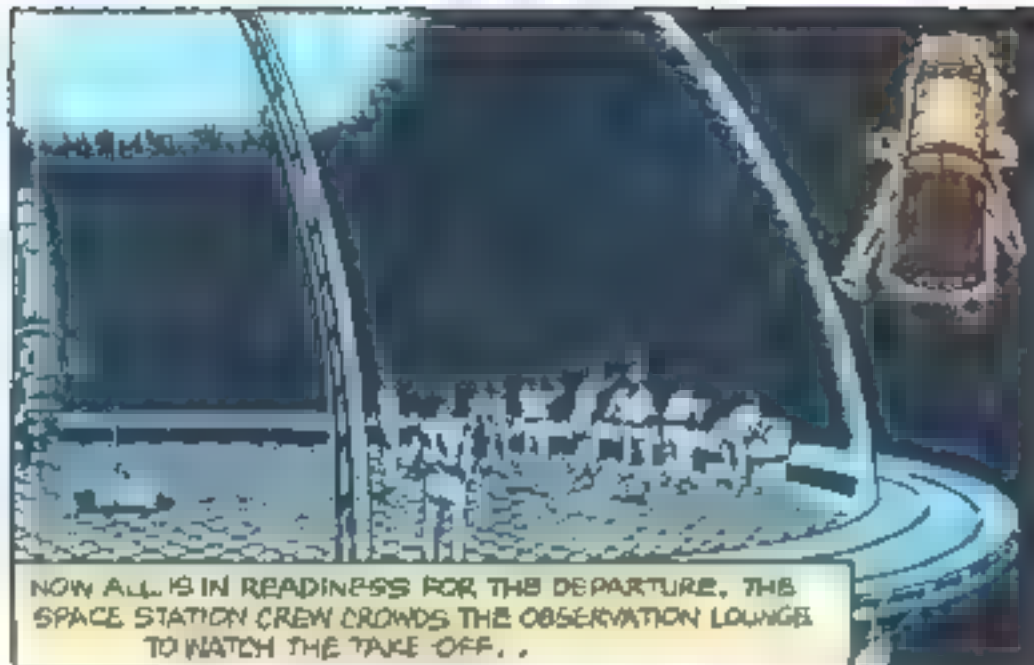
NEAR THE SPACE STATION REVOLVING AROUND THE EARTH 2500 MILES DISTANT, AN ODD-LOOKING CRAFT IS ALMOST COMPLETED. ITS PRE-FABRICATED PARTS WERE FLOWN THERE BY SWIFT DELTA-WING ROCKET SHIPS FROM THE HOME BASE.



AS THE STRANGE CRAFT NEARED COMPLETION, THE FOUR MEN CHOSEN TO MAKE THIS FIRST ATTEMPT TO REACH THE MOON, ASSEMBLED IN THE QUARTERS ASSIGNED TO THEM.



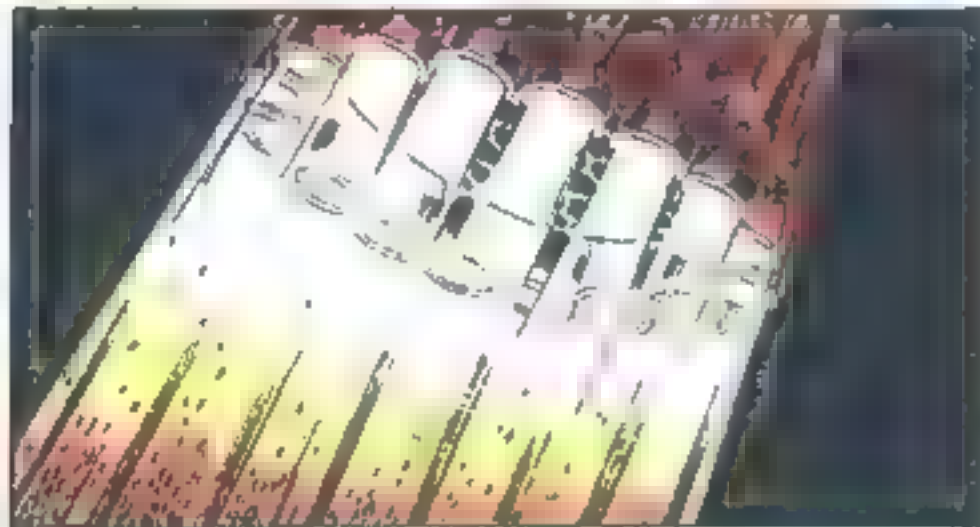
THEY CAREFULLY REVIEWED THE COURSE THEY HAD PLOTTED WHICH WOULD INTERCEPT THE MOON BY THE SHORTEST, MOST PRACTICAL ROUTE.



NOW ALL IS IN READINESS FOR THE DEPARTURE. THE SPACE STATION CREW CROWDS THE OBSERVATION LOUNGE TO WATCH THE TAKE OFF. .



MILLIONS OF PEOPLE ON EARTH WATCH THE EXCITING SCENE ON TELEVISION IN THEIR HOMES AND ON GIANT SCREENS IN MOVIE THEATERS.



THE ATOMIC ROCKETS ARE FIRED. SLOWLY AT FIRST THE SHIP BEGINS TO MOVE. ORANGE FLAMES SPURT FROM THE ROCKET TUBES. GRADUALLY THE SPEED INCREASES. .



SOON THE SHIP IS BUT A STREAK OF LIGHT IN THE BLACKNESS OF OUTER SPACE. IF ALL GOES WELL AND THE COURSE IS RIGHT, IN FIVE DAYS IT SHOULD LAND ON THE MOON!



By
AL STENZEL

THE FIRST EXPEDITION TO THE MOON HAS LEFT THE SPACE STATION AND IS SPEEDING THROUGH THE VOID TO ITS TARGET AT NEARLY 20,000 MILES PER HOUR ON FULL ATOMIC ROCKET POWER.



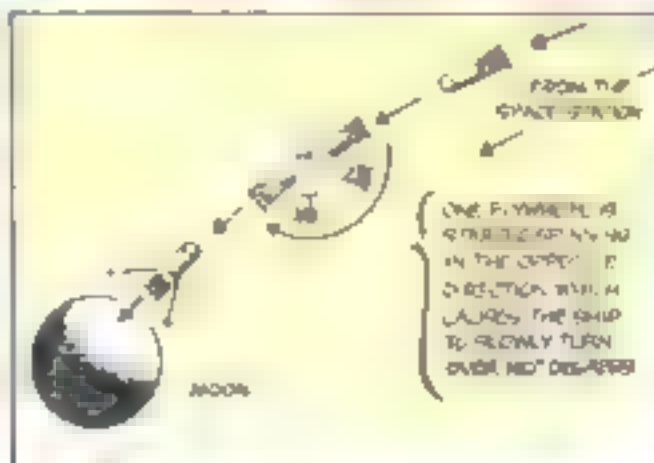
AFTER TWO HOURS OF FULL ROCKET POWER THE AUTOMATIC PILOT CUTS IT OFF AND THE SHIP COASTS TOWARD THE MOON.



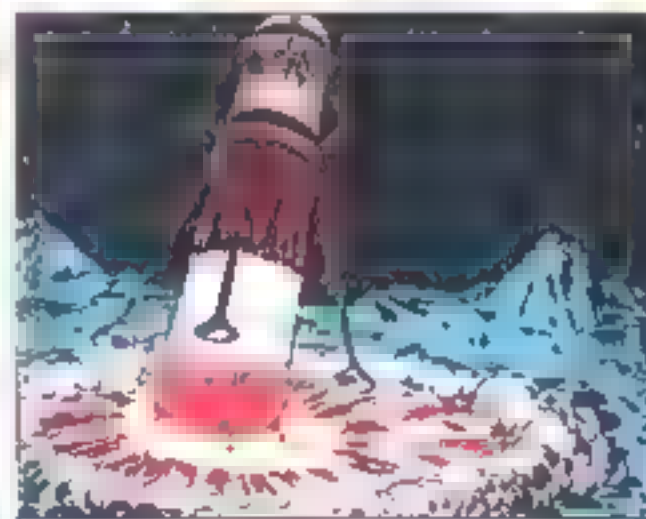
GRADUALLY THE SPEED SLOWS DOWN AND THE CREW, RELEASED FROM THE TERRIFIC FORWARD PRESSURE, CAN AGAIN MOVE ABOUT FREELY IN THEIR CRAMPED QUARTERS.



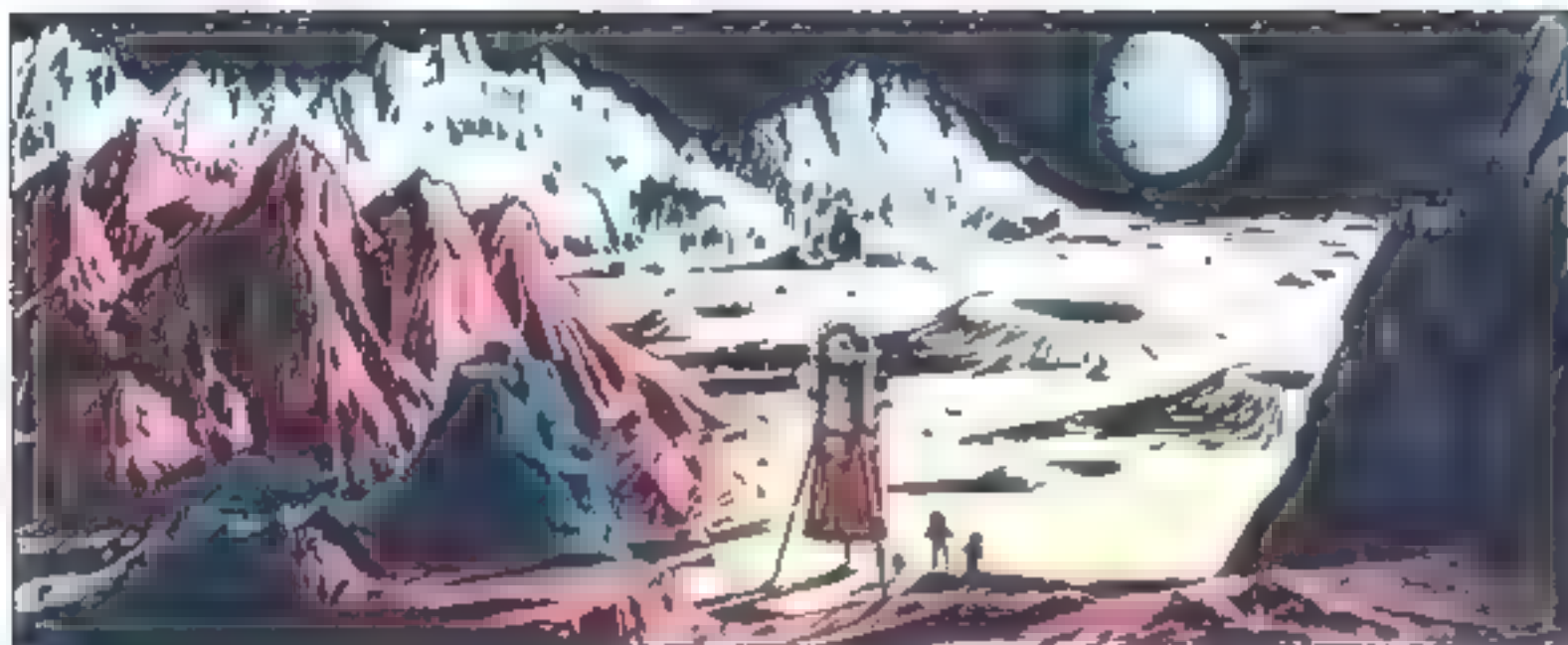
THREE DAYS MORE AND THE SURFACE OF THE MOON LOOMS AHEAD NEARLY FILLING THEIR ENTIRE HORIZON NOW.



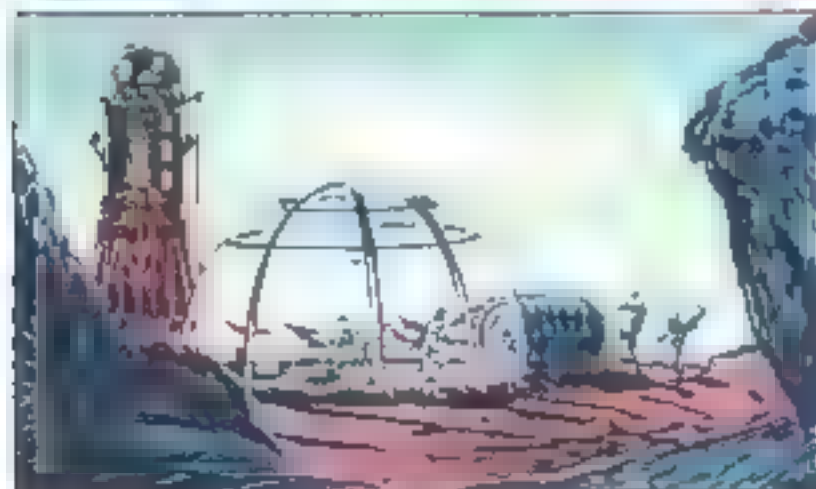
THEY SET THE POSITIONING FLYWHEELS IN MOTION AND THE SHIP MAKES A COMPLETE "TUMBLE" NOW IT IS FALLING TOWARD THE MOON'S SURFACE, ROCKET TUBES DOWN.



AND ON A CUSHION OF ROCKET BLASTS THE SHIP SLOWLY SINKS TO THE MOON'S ROUGH CRATER-PITTED SURFACE.



THE SHIP HAS LANDED ON THE EDGE OF "MARE NUBILIUM," FAR ACROSS THIS CRATER-PITTED PLAIN CAN BE SEEN THE "LEIBNITZ" MOUNTAINS. A GIGANTIC RANGE WHICH REACHES 30,000 FEET INTO THE LUNAR SKY. IN THE MIDDLE DISTANCE CAN BE SEEN THE GREAT CRATER, "CLAVIUS"... 150 MILES FROM RIM TO RIM! TO THE RIGHT, BUT HIDDEN BY A LARGE ROCK FORMATION IS THE CRATER "TYCHO." BOTH OF THESE CRATERS CAN BE SEEN FROM EARTH WITH JUST A SMALL TELESCOPE.



DONNING THEIR SPACE SUITS THE ADVENTUROUS CREW DESCEND TO THE MOON'S DUSTY SURFACE. THEY FIRST SET UP A PRESSURIZED HUT TO SERVE AS A BASE FOR THEIR SUPPLIES AND EQUIPMENT.

DURING THE MOON'S DAY (336 HOURS LONG) THE TEMPERATURE REACHES 212 DEGREES F. DURING THE NIGHT OF 336 HOURS THE TEMPERATURE DROPS TO 250 DEGREE S BELOW ZERO F.. A TOTAL DAILY RANGE OF OVER 400 DEGREES!

THE GRAVITATIONAL PULL ON THE MOON IS ONE-SIXTH THAT ON EARTH, SO THE SPACE SHIP'S CREW MUST WALK CAREFULLY UNTIL THEY BECOME USED TO THIS "STRANGE FEELING OF "LIGHTNESS".

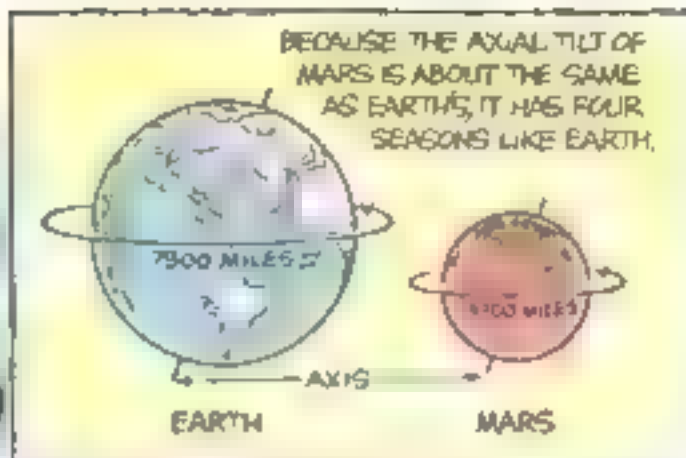


SINCE THE MOON ALWAYS KEEPS THE SAME FACE TURNED TOWARD THE EARTH MAN HAS NEVER OBSERVED ITS OTHER SIDE. NOW, FOR THE FIRST TIME, THAT UNKNOWN SIDE WILL BE EXPLORED AND MAPPED.

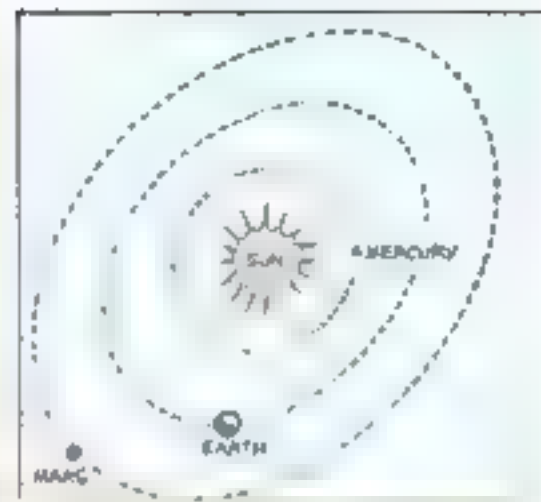


BY AL STENZEL

THIS SUMMER THE PLANET MARS WILL SWING CLOSER TO EARTH THAN AT ANY TIME SINCE 1944 40,000,000 MILES. BUT NOT AS CLOSE AS IT WILL IN 1956 (55,000,000 MILES).



ALTHOUGH NO MEASURABLE AMOUNT OF OXYGEN HAS YET BEEN DETECTED ON MARS, MOST SCIENTISTS BELIEVE THERE MUST BE SOME. WE DO KNOW ITS ATMOSPHERE CONTAINS CARBON DIOXIDE AND A SMALL AMOUNT OF WATER VAPOR.



MARS ORBIT AROUND THE SUN IS MUCH MORE ELLIPTICAL THAN EARTH'S. IT TAKES TWO EARTH YEARS FOR MARS TO REVOLVE ONCE AROUND THE SUN.



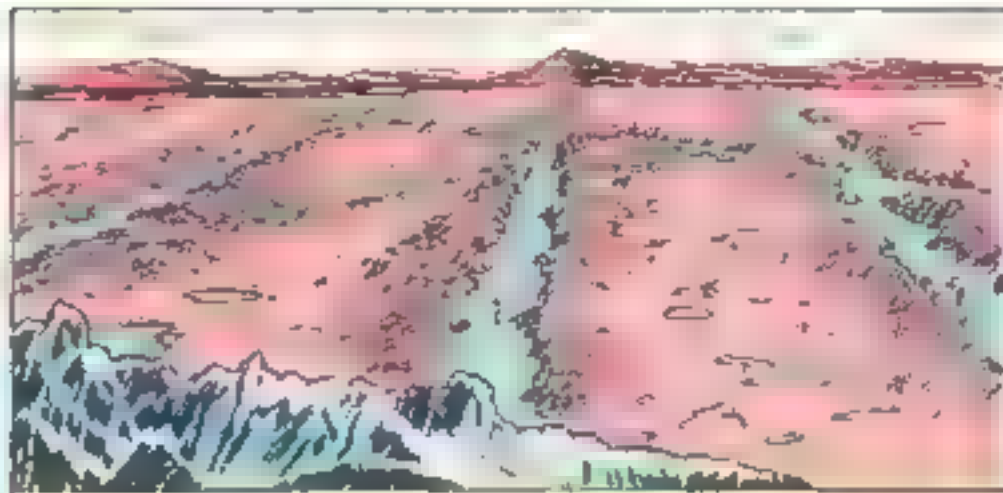
IN 1877 ASAPH HALL DISCOVERED THAT MARS HAD TWO TINY MOONS. PHOBOS, THE NEARER ONE ABOUT 5,100 MILES DISTANT, AND DEIMOS, ABOUT 12,500 MILES DISTANT. EACH ARE ONLY 10 TO 20 MILES IN DIAMETER.



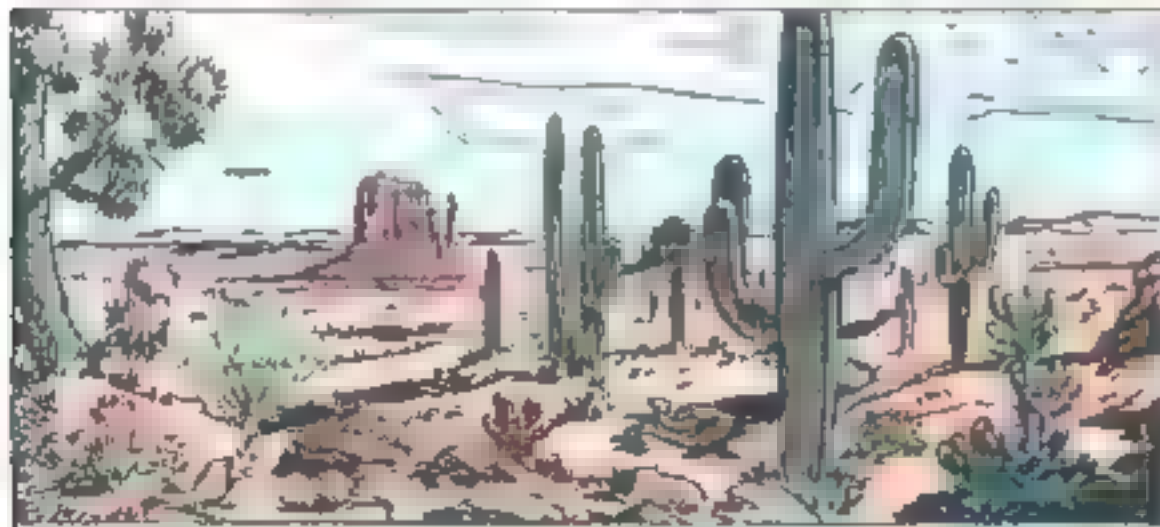
AT ABOUT THE SAME TIME HENRIK SCHWABERELL SAW FOR THE FIRST TIME LINES ON THE PLANET WHICH HE CALLED "CANALS." HE WAS SURE THE DARK AREAS WERE SEAS AND THE LIGHT AREAS CONTINENTS. SINCE THEN OTHER ASTRONOMERS HAVE SEEN THESE MARKINGS, AMONG THEM, DR. PERCIVAL LOWELL OF THE LOWELL OBSERVATORY.



HOWEVER, THESE SO CALLED CANALS HAVE NOT BEEN KEENLY BY ALL OBSERVERS. MANY ASTRONOMERS, TODAY DO NOT BELIEVE IN THE EXISTENCE OF THESE CANALS AT ALL. PERHAPS WE'LL SOON KNOW.



WE DO KNOW THAT MARS' POLAR CAPS INCREASE IN SIZE DURING ITS WINTERS AND MELT DURING ITS SPRINGS WHEN STRANGE BLUE-GREEN AREAS DEVELOP, COVERING GREAT AREAS OF THE PLANET. THEY TURN A VERY BROWN COLOR DURING THE SUMMER.



IF THERE IS LIFE ON MARS IT MUST NECESSARILY BE HARDY. YET VARIOUS FORMS OF LIFE EXIST ON EARTH UNDER CONDITIONS NO LESS SEVERE. FOR EXAMPLE, MANY PLANTS AND ANIMALS SURVIVE IN OUR AMERICAN DESERTS.



SOME DAY, IN THE NOT TOO-DISTANT-FUTURE, SWIFT ROCKET SHIPS MAY CONQUER SPACE ENABLING MAN TO DISCOVER MARS' SECRETS.

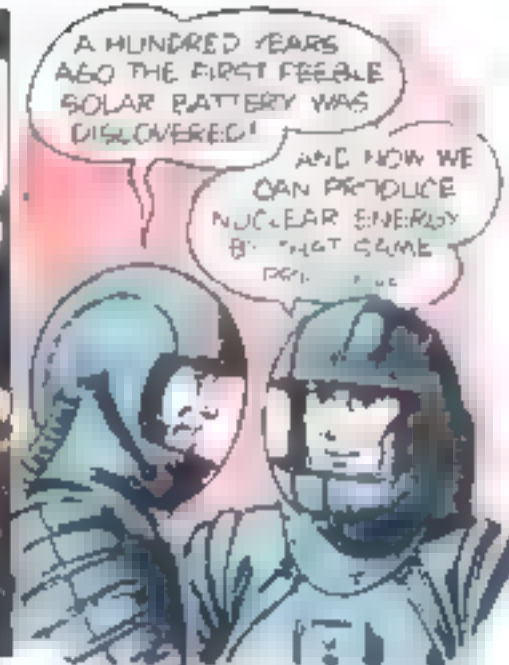
SPACE CONQUERORS

BY AL SENZEL

IT IS NOVEMBER 1954 AND COMING
AN AMERICAN STARTING AN AMERICAN
A GROUP OF SCIENTISTS AT THE
LUNAR OBSERVATORY IN EARTH'S
SATELLITE, THE MOON

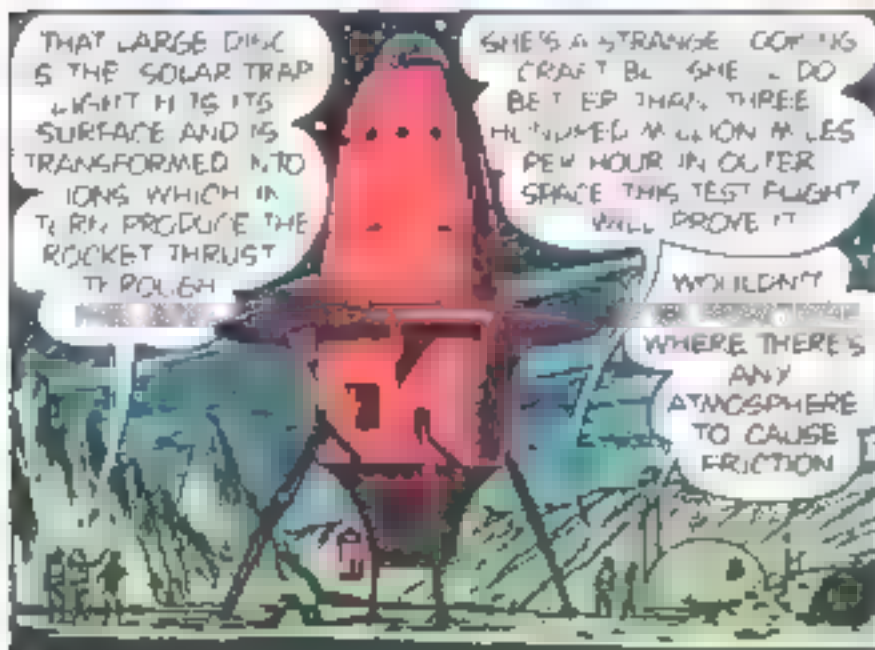


THE SPACESHIP WE HAVE JUST
COMPLETED HERE IN OUR LUNAR
PLANT WILL BE PROPULSED BY LIGHT
RAYS THAT ELECT A POWERFUL
STREAM OF CHARGED PARTICLES
OR IONS WHICH WILL PRODUCE
A THRUST EQUAL TO ONE
HALF THE SPEED OF LIGHT



A HUNDRED YEARS
AGO THE FIRST FEELER
SOLAR BATTERY WAS
DISCOVERED!

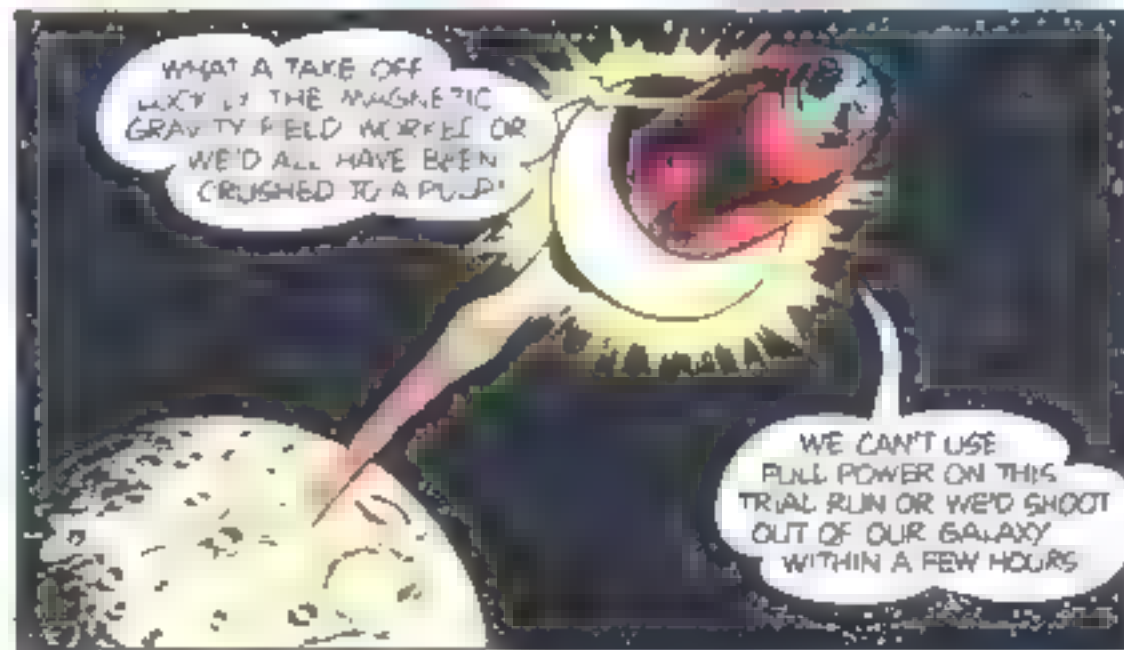
AND NOW WE
CAN PRODUCE
NUCLEAR ENERGY
BY THAT SAME
PROCESS



THAT LARGE DISK
IS THE SOLAR TRAP
WHICH IS ITS
SURFACE AND IS
TRANSFORMED INTO
IONS WHICH IN
TURN PRODUCE THE
ROCKET THRUST
THROUGH

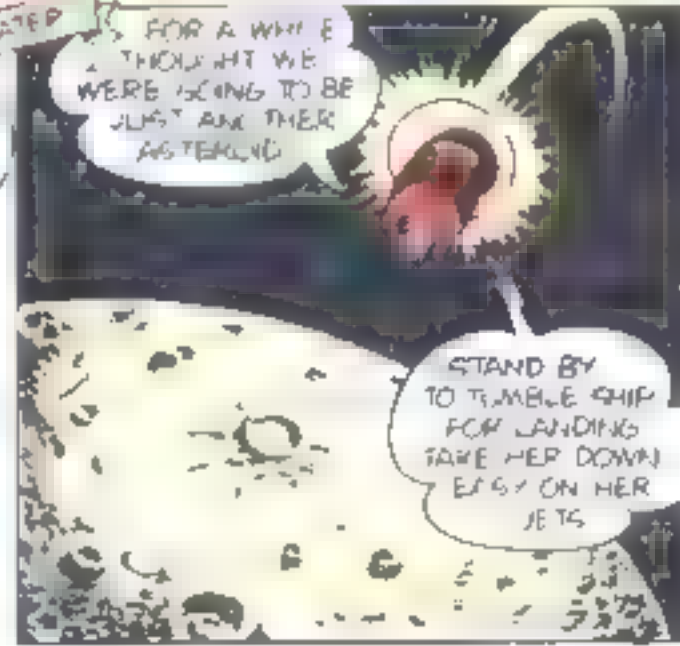
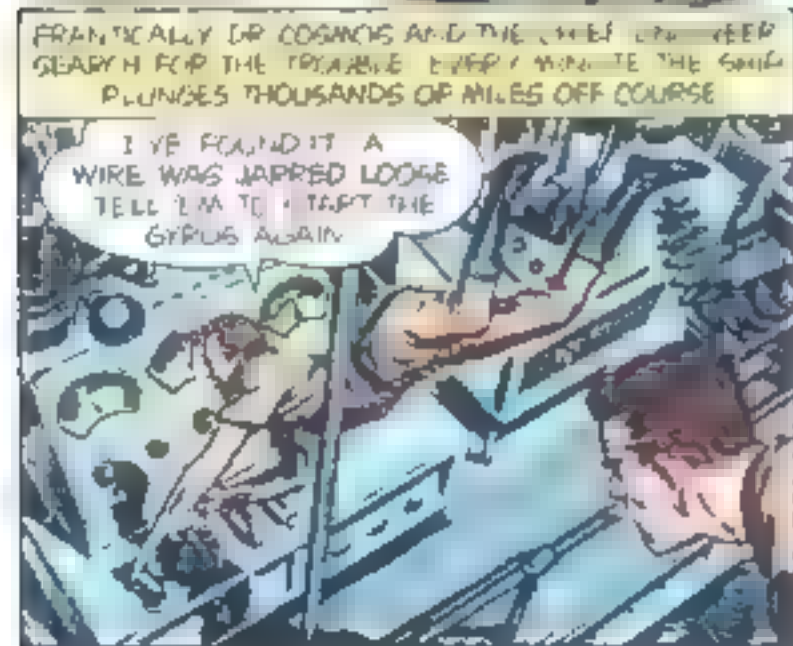
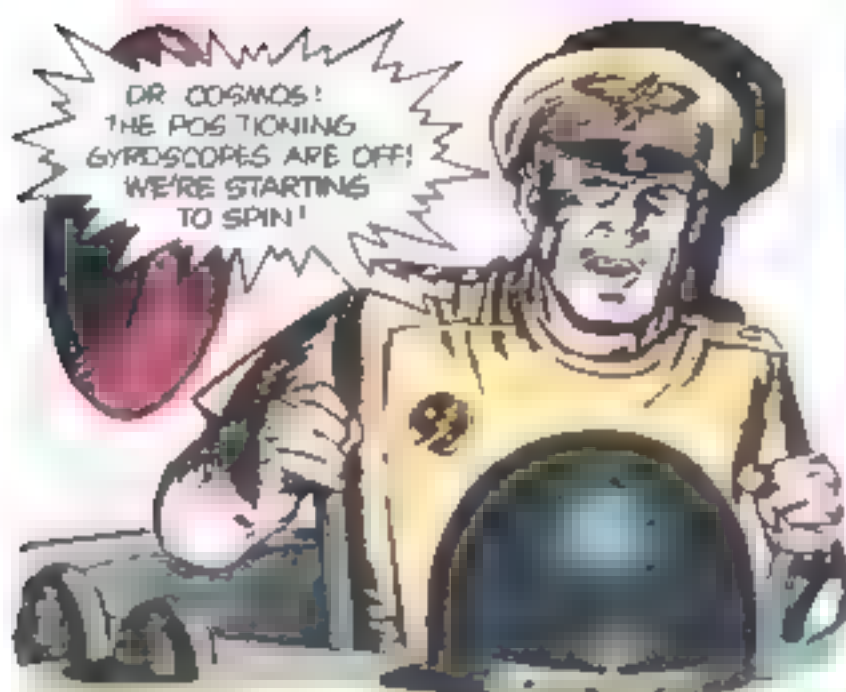
SHE'S A STRANGE CRAFT
BUT SHE CAN DO
BETTER THAN THREE
HUNDRED MILLION MILES
PER HOUR IN OUTER
SPACE THIS TEST FLIGHT
WILL PROVE IT

WOULDN'T
WHERE THERE'S
ANY
ATMOSPHERE
TO CAUSE
FRICTION



WHAT A TAKE OFF
WXY IS THE MAGNETIC
GRAVITY FIELD WORKS OR
WE'D ALL HAVE BEEN
CRUSHED TO A PULP!

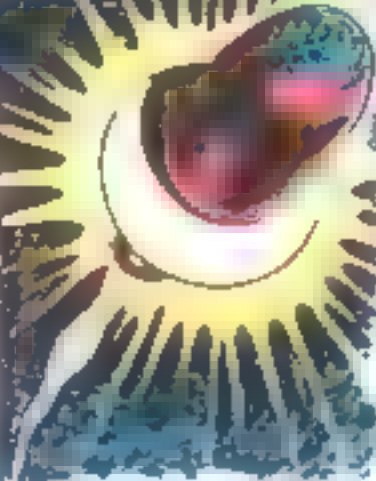
WE CAN'T USE
FULL POWER ON THIS
TRIAL RUN OR WE'D SHOOT
OUT OF OUR GALAXY
WITHIN A FEW HOURS



SPACE CONQUERORS!

BY AL STENZEL

TAKING OFF FROM THE MOON'S INTER STELLAR BASE DR ODSMOS AND HIS CREW ZOOM TOWARD THE VAST REACHES OF OUTER SPACE IN THEIR NEW SOLAR-POWERED SPACESHIP DESTINATION ALPHA CENTAURI.



SO YOU THINK THERE ARE PLANETS REVOLVING AROUND THE SUN, ALPHA CENTAURI, DR ODSMOS?

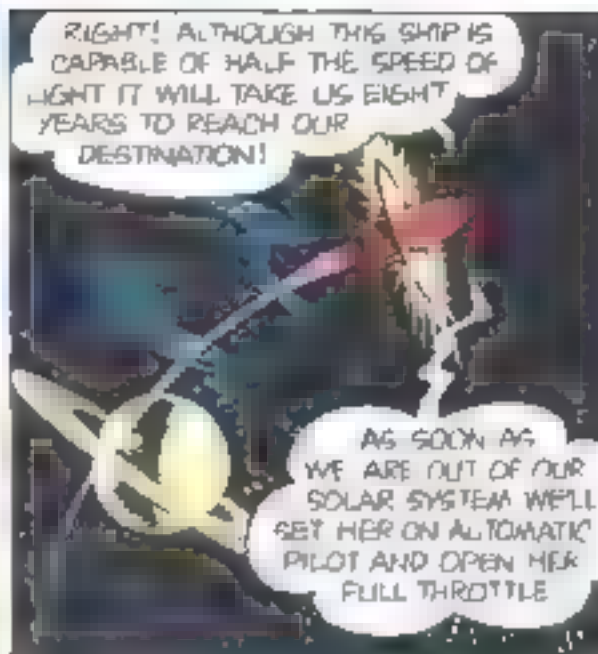
THERE MUST BE WHEN STARS ARE FORMED THERE IS SURE TO BE DEBRIS LEFT WHICH WOULD CONDENSE INTO PLANETS.

IF WE SURVIVE THIS LONG JOURNEY WE'LL FIND OUT.



RIGHT! ALTHOUGH THIS SHIP IS CAPABLE OF HALF THE SPEED OF LIGHT IT WILL TAKE US EIGHT YEARS TO REACH OUR DESTINATION!

AS SOON AS WE ARE OUT OF OUR SOLAR SYSTEM WE'LL SET HER ON AUTOMATIC PILOT AND OPEN HER FULL THROTTLE.



A TWENTY YEAR ROUND TRIP. IF IT WASN'T FOR THIS NEW SOLAR POWER MEN WOULD NEVER BE ABLE TO GET FURTHER THAN JUPITER.

WE'LL HAVE A NEW AERIAL VIEW OF THE EARTH AND THE EXCITING PICK-UPING OF THE JUPITER.



DAY AFTER DAY THE SHIP SPEED INWARD A TERRIFIC SPEED INTO THE BLACKNESS OF OUTER SPACE ITS TELESCOPE CAMERA WAS CONSTANTLY TAKING PHOTOS OF THE VARIOUS STAR TYPES IN THE GALAXY.



ONE OF THE MOST EXCITING WAS A SHOT OF A DOUBLE STAR OF THE BETA LYRAE TYPE THE TWO STARS ARE SO CLOSE TOGETHER THEIR GRAVITATIONAL FIELDS DISTORT THEM INTO ELLIPSES LINKED BY A BRIDGE OF INCANDESCENT HYDROGEN.



ANOTHER WAS A PICTURE OF THE DOUBLE STAR MIKA A SO-CALLED "RED GIANT" AND ITS COMPANION. A WHITE "DWARF" STAR MIKA IS SO TENUOUS IT DOES NOT SHOW A DEFINITE CORE. THE OTHER STAR CAN BE SEEN SHINING THROUGH ITS RED MIST.

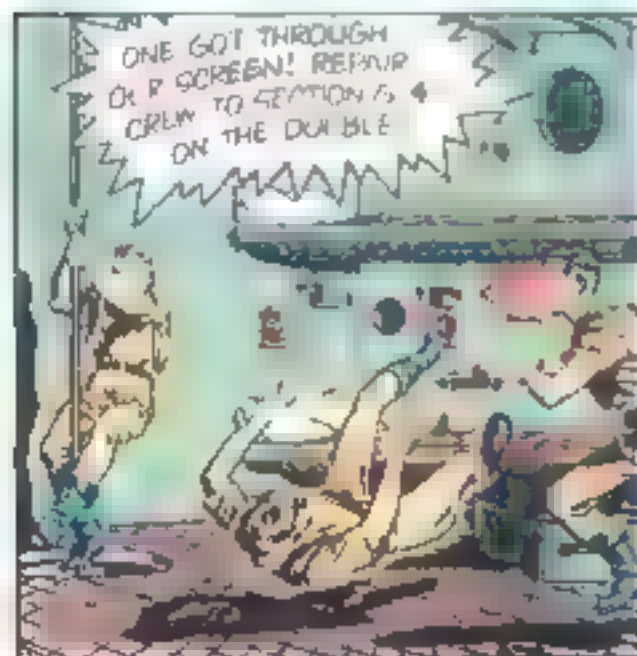


AS THE MONTHS GO BY STILL OTHER WEIRD STAR FORMATIONS ARE SEEN. THEY GET AN EXCELLENT SHOT OF A CLUSTER OF SIX STARS OF VARIOUS COLORS REVOLVING AROUND EACH OTHER.



SUDDENLY THROUGHOUT THE SHIP ALARM BELLS AROUSE THE CREW TO ACTION.

METEOR SWARM APPROACHING, TEN O'CLOCK! MAN ALL EMERGENCY STATIONS WE'LL TRY TO DODGE 'EM!



ONE GOT THROUGH OUR SCREEN! REPAIR CREW TO SECTION 7, 4 ON THE DOUBLE!



QUICKLY THE REPAIR CREW DON THEIR SPACE SUITS AND CLAMBER OUT OF AN AIR-LOCK WITH THEIR EQUIPMENT THEY WELD A PLATE OVER THE JAGGED HOLE IN THE PROTECTIVE OUTER HULL...



T ST LK T K HILL A GOOD AND TRYIN IF 'HAT F V4 HAD GONE THROUGH THE ALPH. HILL. WE'D BE GONE SPACE JOCKEYS.

YOU'VE GOT TO HAND T TO DR. CHAMOK, HE DUGGED ALL BUT THAT SMALL ONE.

CHEER UP...ONLY SEVEN MORE YEARS AND WE'LL REACH ALPHA CENTAURI!

SPACE CONQUERORS!

YEAR AFTER YEAR OF COSMOS
AND HIS CREW SPEED THROUGH
SPACE ON THEIR SOLAR-POWERED
SPACESHIP TOWARD EARTH'S
NEARBY COSMOS, GIVING A TALK ON
... 4 1/2 LIGHT YEARS AWAY
DR COSMOS IS GIVING A TALK ON
THE ORIGIN OF SPACE

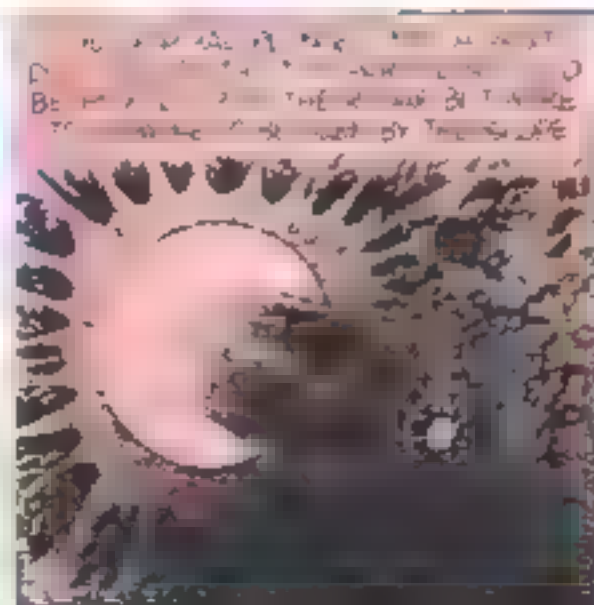
DURING THE COURSE OF MILLIONS OF YEARS THE PARTICLES MAKING UP THE DUST CLOUDS WOULD BE SLOWLY DRAWN TOGETHER UNTIL THEY HAD ATTAINED A DENSITY SUCH THAT GRAVITY TOOK EFFECT

SO IF THIS THEORY OF AIR
DYNAMICS IS VERIFIED AS CORRECT
THERE WOULD BE A LOT TO BE LEARNED
FROM THE STUDY OF AT LEAST
ONE OF THE FOLLOWING

THE INTERSTELLAR SPACE CONTAINS GIANTIC
CLOUDS OF GAS COMPOSED OF
MOUNTAINS OF MICROSCOPIC MATERIAL.
THESE CLOUDS OF STAR DUST HAS ALL OF THE
MATERIAL FROM WHICH STARS ARE BORN.
THESE CLOUDS ARE SO ALL THE BILLIONS
OF STARS MUST BE VERY SIMILAR TO
OUR SUN.

[illegible]

* THESE ~~WARMER~~ ~~WARMER~~ WOULD BE WARMER NOT
BE BEING ~~RE-~~ ELY ~~SAME~~ HE ~~WAS~~ FORMED
BY ~~THE~~ ~~FORMATION~~ WOULD NOT BE SUFFICIENT
TO ~~ART~~ ~~THE~~ ~~NUCLEAR~~ REACTIONS THAT MADE
THE ~~WIDE~~ ~~MUCH~~ ~~RADIATE~~ AS A $\approx 10^4$ GRADUALLY
THE PLANETS WOULD COOL OFF



SPACE CONQUERORS!

BY AL STENZEL

THE LAST PART OF THE
ARCHAEOLOGICAL EXCAVATION
OF THE DEER HOUND
SITE, ESTABLISHED IN 1954
BY THE DEER HOUND
ARCHAEOLOGICAL SOCIETY

WE'LL MAKE IT PROXIMA CENTAURI IS ON THE
SCOPE GROWING BLACKER EVERY SECOND. AND
THE DOUBLE SUNS BETA AND ALPHA TOO
WE'RE GETTING CLOSE DR COSMOS

AND HIGH TIME
EIGHT EGGS AT HALF
THE SPEED OF NHT

A FEW MORE HOURS THEN ALARM BELLS
RING THROUGHOUT THE ENTIRE SHIP.

GENERAL ALARM
WHAT'S UP?

WE'RE GOING
TO TRIMBLE SHIP
AND START DECELERATING.
STAND BY YOUR
EMERGENCY STATION!

THE NINE BAYANINIC A-RESCOOTING FROM THE GRABER OF
END OVER END WHEN IN FULL FLIGHT AT THAT THE BAYANINIC
BAYANINIC CAN BE USED TO CHASE TO BAYANINIC BAYANINIC

1. The first 4000 ft of the NE 20
 is a 1000 ft thick sandstone, 5000 ft thick
 of the 1000 ft thick sandstone, 5000 ft thick
 of the 1000 ft thick sandstone, 5000 ft thick

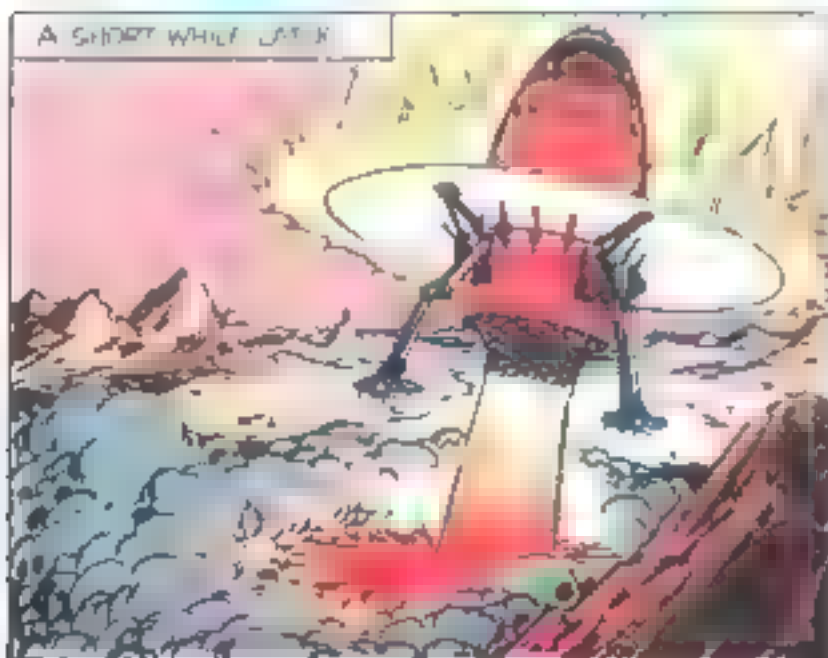
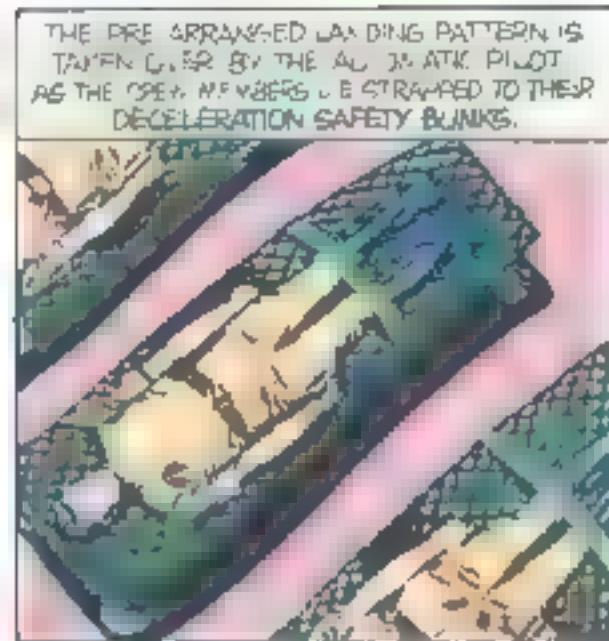
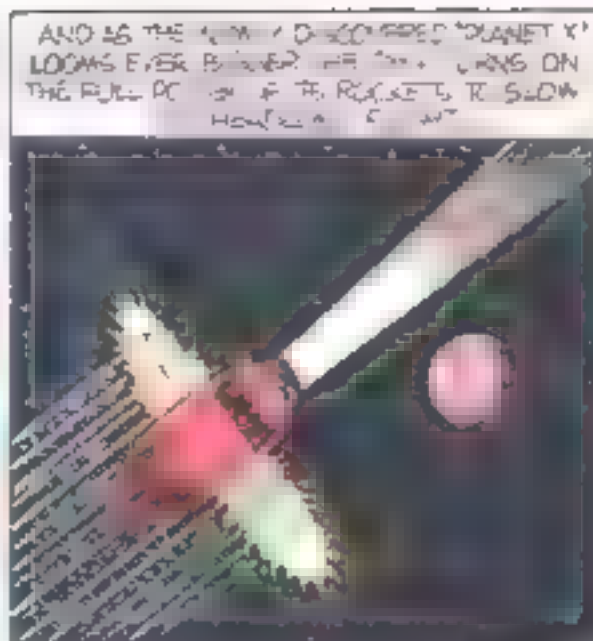
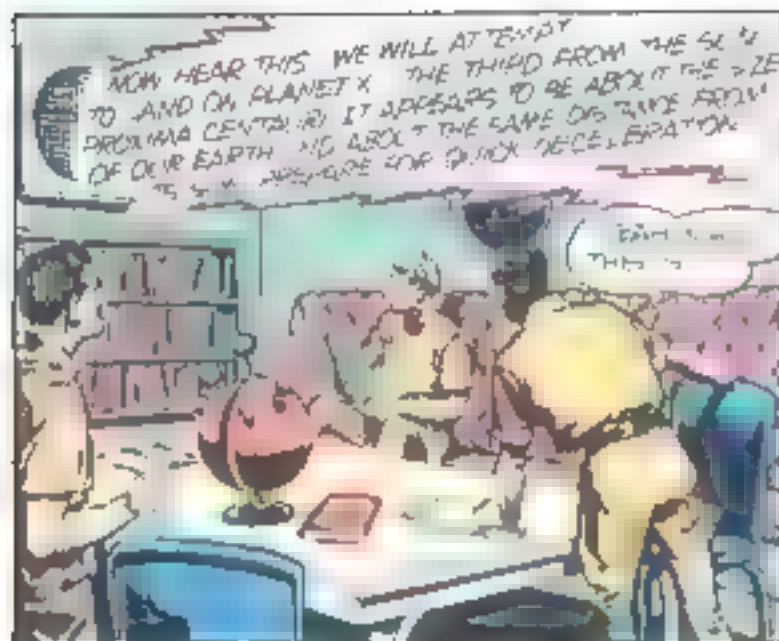
[illegible]

7.4.1.1. As a result of the WATER

MUST BE PLAIN

SOO WE'LL
CHARGE A
AN & IF NOT
A IN FROM
PHYSICA M

ALTHOUGH NOW TRAVELING 'BACKWARDS' THE SH F PLUNGED
ON, GRADUALLY SLOWING AS TS ROCKETS BLAST AGAINST TS
FORWARD THRUST



WITH A FEW HUNDREDS OF ROCKETS THE SHIP WENT TO A BRISK LANDING ON THE SURFACE OF "PLANET X". SOON AS THE SHIP LANDED BOTH COOLED DOWN IN THE SEA. A NEW "PLANET X" WAS DISCOVERED IN THE "SEA" AREA. TO TEST THE ATMOSPHERE OF THIS RED AREA WE WENT TO THIS AREA OF LAND. A THEORY WAS CORRECT. THERE WERE PLANETS SIMILAR TO EARTH REVOLVING AROUND THE SUNS OF OTHER GALAXIES BUT COULD LIVE AS WE KNOW IT EXIST ON THEM?

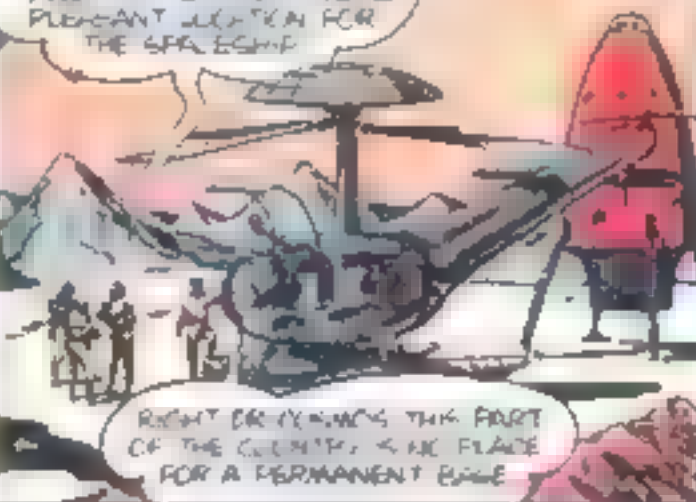


SPACE CONQUERORS!

BY AL S. FINKEL

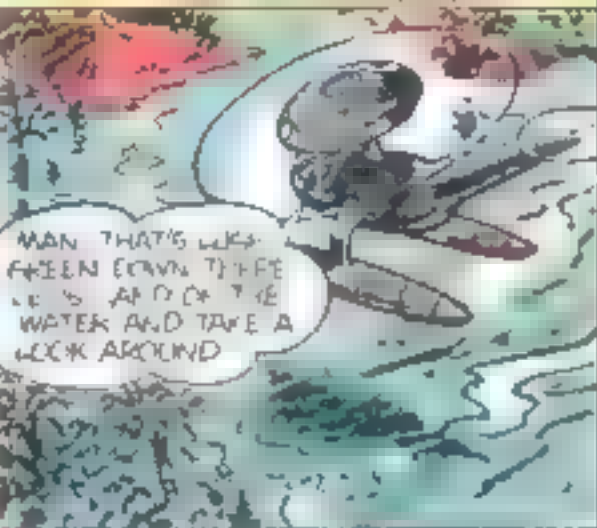
HAVING SUCCESSFULLY BRIDGED THE VAST DISTANCE FROM EARTH TO PLANET X ONE OF THE MANY WICKEDS REVOLVING AROUND PROXIMA, THE THIRD SUN IN THE CONSTELLATION CENTAURIUS THE HARDY VOYAGERS PREPARE TO SEND OUT AN EXPLORATION PARTY. THE ATMOSPHERE HAS BEEN TESTED AND FOUND PERFECTLY SUITABLE FOR HUMANS. NOW A SOLAR-POWERED HELICOPTER IS ASSEMBLED.

"I DON'T WANT YOU TWO TAKING ANY UNNECESSARY CHANCES. YOU ARE TO EXPLORE THE POSSIBILITY OF LIFE FORMS ON THIS PLANET AND TRY TO FIND A MORE PLEASANT LOCATION FOR THE SPACESHIP."



"RIGHT BEYONDING THIS PART OF THE COUNTRY IS THE PLACE FOR A PERMANENT BASE."

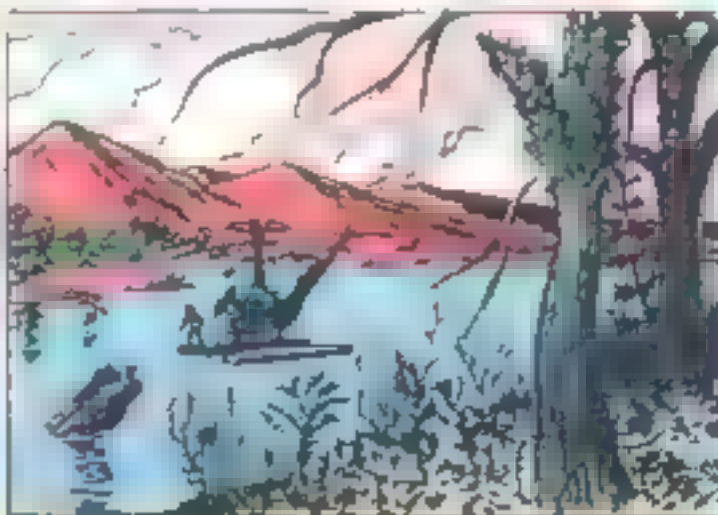
IN A FEW MINUTES THE HELICOPTER HAS CROSSED THE DESERT WASTE, CLIMBED OVER THE SURROUNDING MOUNTAINS AND COMES TO A REST IN A POOL OF WATER.



"MAN THAT'S LIKE FLYING DOWN THERE. WE'VE GOT TO GET THE WATER AND TAKE A LOOK AROUND."

"WE'LL PUT ON OUR DIVING GEAR AND GO DOWN TO THE SURFACE THERE. I THINK WE MUST BE NEAR LIFE IN THAT WATER."

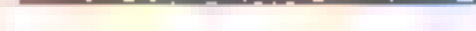
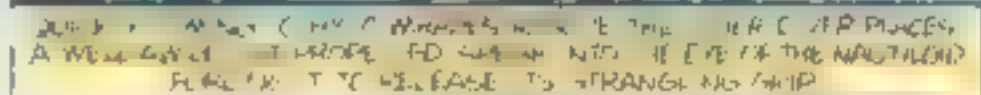
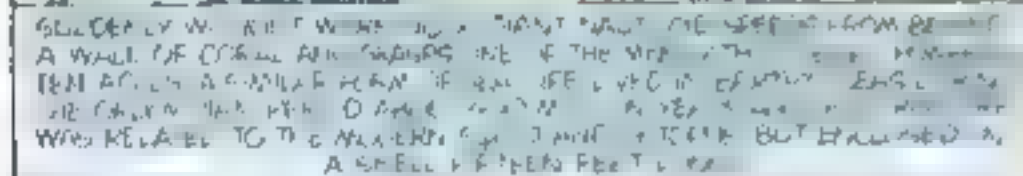
"NOTICE SOMETHING? I THINK THAT THE WATER IS THAT OLD. THE EARTH CHANGED MILLIONS OF YEARS AGO DURING THE DEVONIAN PERIOD. WE STILL FIND FOSSILIZED REMAINS IN LUMPS OF COAL."



SETTING THEIR HELICOPTER DOWN ON THE PLACID SURFACE OF THE INLAND SEA THE TWO MEN DON THEIR DIVING GEAR AND GO DOWN INTO THE WARM CLEAR WATER. THEY CAN HARDLY BELIEVE THE SIGHT WHICH MEETS THEIR EYES.



FOR HERE ARE LIVING CREATURES WHICH HAVE BEEN DEAD FOR MILLIONS OF YEARS. TRILOBITES, CORALS, NAUTILUS, AND MANY OTHERS OF OTHER STRANGE INVERTEBRATES WHICH NO HUMAN HAS EVER SEEN EXCEPT AS FOSSILS.



SPACE CONQUERORS!

by AL STEIN

DR COSMOS AND HIS SPACE CREW HAVE LANDED ON "PLANET X" WHICH IS ONE OF A NUMBER OF WORLDS REVOLVING AROUND THE SUN "PROXIMA" IN THE CONSTELLATION "CENTAURUS"

AN EXPLORING CREW HAS JUST RETURNED TO THE SPACESHIP IN A SOLAR-POWERED HELICOPTER AFTER AN EXCITING ADVENTURE WITH A GIANT NAUTILOID IN AN INLAND SEA

THE GANG WILL BE DISAPPOINTED THAT WE DIDN'T FIND A BETTER BASE THAN THIS HOT DESERT

WE'LL MAKE OUR REPORT OF THE WASTE LIFE WE FOUND AND SEARCH FOR A BETTER ONE



NIGHT ON PLANET X PROVES TO BE AN AMAZING SIGHT



LOOK AT THE SIZE OF THAT STAR

THAT'S ALPHA CENTAUR. IT'S A FIRST MAGNITUDE STAR, AND NEAR IT YOU CAN SEE ITS COMPANION, BETA

WHAT'S THAT BRIGHT GLOW JUST BELOW THEM?

THAT'S A CLUSTER OF SOME 50,000 STARS CALLED OMEGA CENTAUR. ALL PART OF THE CONSTELLATION CENTAURUS

THE NIGHTS HERE ARE CERTAINLY LIGHT. MANY OF THESE BRIGHT STARS IN THE HEAVENS! WHAT A BEAUTIFUL SIGHT! EARTH NIGHTS CAN'T COMPARE WITH THESE



YES, A DOZEN STARS IN THE SKY ADDS A LOT OF BEAUTY TO THE NIGHTS OF THE SKY. BUT THE EYES OF ALPHA AND BETA ARE THE MOST BEAUTIFUL. THEY ARE THE ONLY STARS IN THE SKY THAT ARE BRIGHT ENOUGH TO BE SEEN FROM THE GROUND. THEY ARE THE ONLY STARS IN THE SKY THAT ARE BRIGHT ENOUGH TO BE SEEN FROM THE GROUND.

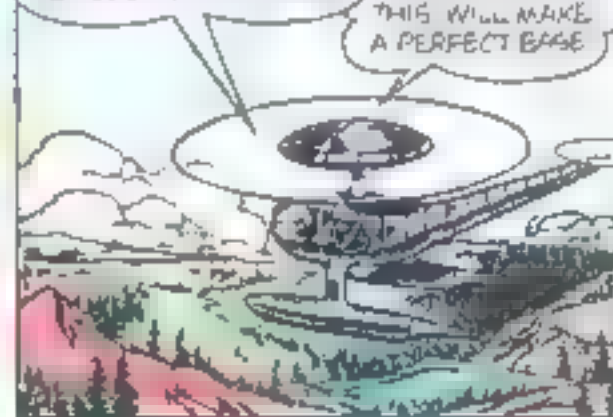


MAN, THAT'S SOME JOURNEY

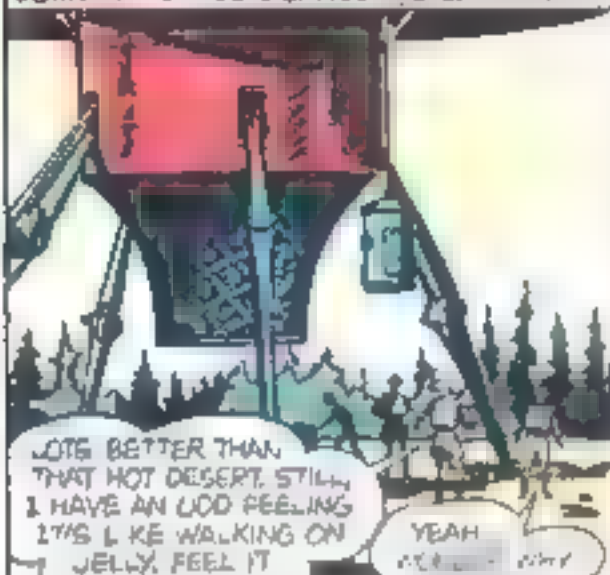
NEXT DAY THE TWO HELICOPTER PILOTS TAKE OFF AGAIN TO FIND A MORE PLEASANT BASE FOR THE SPACESHIP

DR COSMOS SAID WE'RE NOT TO FOOL AROUND WITH THE LOCAL FAUNA. HEY, LOOK DOWN THERE

LOVELY! JUST LIKE THE NORTHWEST BACK ON EARTH. REBID THE SHIP. THIS WILL MAKE A PERFECT BASE



A SHORT WHILE LATER THE SPACESHIP SETTLES DOWN IN THE MIDDLE OF A LUSH GREEN MEADOW



LOTS BETTER THAN THAT HOT DESERT. STILL I HAVE AN UDD FEELING IT'S LIKE WALKING ON JELLY. FEEL IT

YEAH

DR. COSMOS CALLS HIS CREW TOGETHER

MEN, THIS PLANET RESEMBLES EARTH IN MANY WAYS BUT THERE'S NO TELLING HOW AS A SHIP RUN UP AGAINST WE ALMOST LOST THE COOPER PILOTS IN THAT WILDERNESS WE'VE GOT A LOT OF EXPLORING TO DO AND A LOT OF REPAIRS TO MAKE NO ONE IS TO GO AROUND ALONE KEEP IN TOUCH WITH THIS BASE AT ALL TIMES THE SOONER WE DO OUR JOB HERE THE SOONER WE HEAD FOR HOME



THE MEN NO SOONER START ON THEIR VARIOUS DUTIES, WHEN



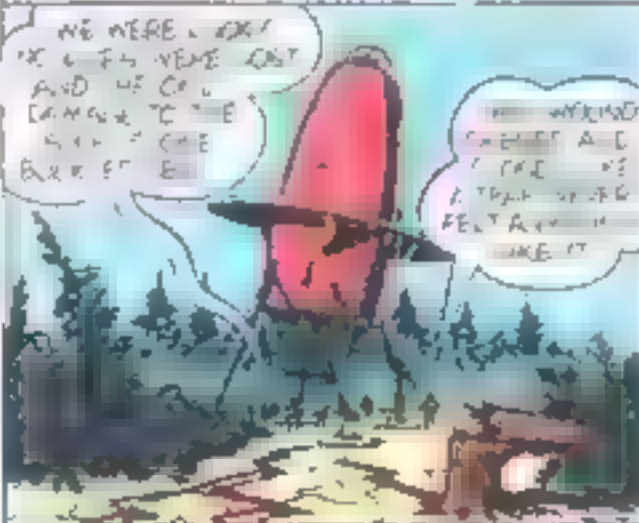
EARTHQUAKE BACK TO THE SHIP! DROP YOUR PACKS AND RUN!

HEY WHAT?



LOOK OUT! THE GROUND IS SPLITTING OPEN RIGHT IN FRONT OF US! WE CAN'T MAKE THE SHIP

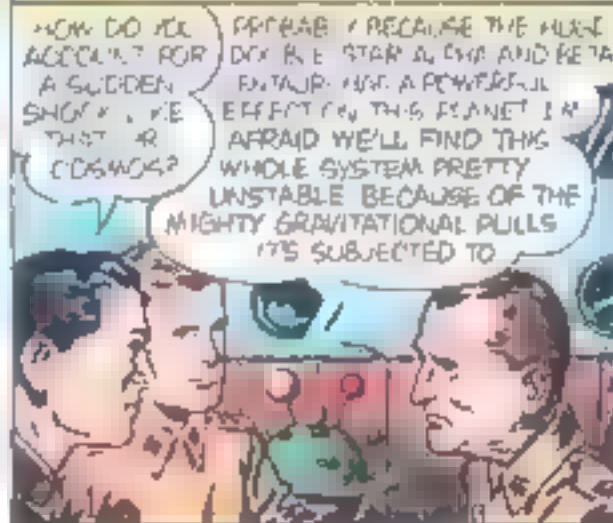
THREE POWERFUL QUAKES SHAKE THE AREA RECKING THE SHIP AND STORMING THE CREW



WE WERE LUCKY! WE WERE LOST AND WE COULD MAKE IT TO THE SHIP! THE EARTHQUAKE

WE WERE LUCKY! WE WERE LOST AND WE COULD MAKE IT TO THE SHIP! THE EARTHQUAKE

THE CREW SOON REPAIR THE SHIP AND THAT NIGHT DISCUSS THE SITUATION



HOW DO YOU ACCOUNT FOR A SUDDEN SHOCK? WE THOUGHT DR. COSMOS?

PERHAPS / BECAUSE THE PLANET DOESN'T START ALONE AND KEYS A SUDEN SHOCK. A POWERFUL EFFECT ON THIS PLANET I'M AFRAID WE'LL FIND THIS WHOLE SYSTEM PRETTY UNSTABLE BECAUSE OF THE MIGHTY GRAVITATIONAL PULLS ITS SUBJECTED TO



SPACE CONQUERORS!
BY AL STENZEL

DR. COSMOS SOLAR POWERED HELICOPTER AGAIN TAKES OFF FROM THE BASE ON PLANET X IN THE CONSTELLATION CENTAURUS FOR FURTHER EXPLORATION



"THIS IS A STRANGE PLANET (IT'S A LOT LIKE EARTH MUST HAVE BEEN IN PREHISTORIC TIMES)"

"I'LL SAY ONE THING FOR IT WE HAVEN'T HAD A DULL MOMENT SINCE WE LANDED HERE"



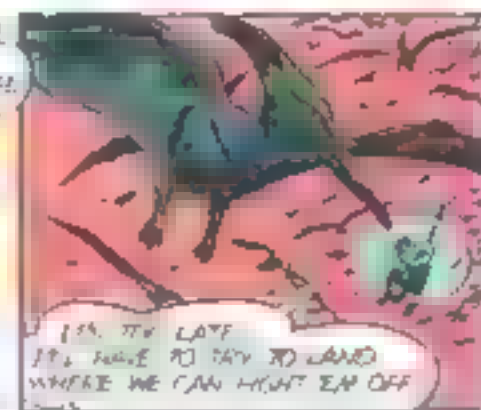
"LOOK AT THE FACE OF THAT CLIFF IT'S COVERED WITH HUGE BIRDS OF SOME KIND"

"IT'S A ROOKERY! THERE MUST BE THOUSANDS OF 'EM LET'S FLY OVER FOR A CLOSER LOOK!"

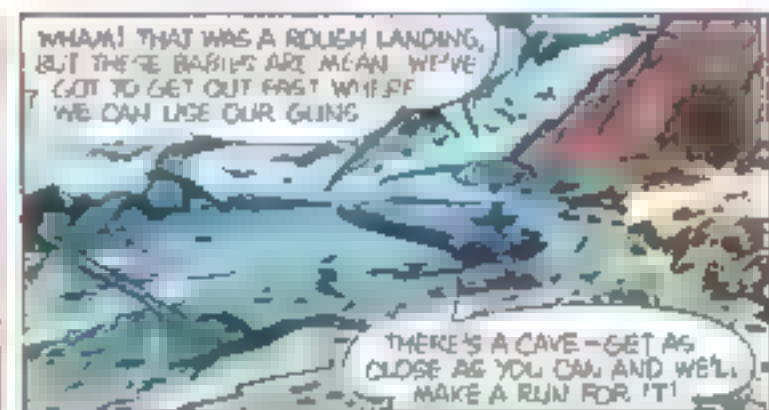


"HEY! THOSE AREN'T BIRDS THEY'RE MONSTERS! LET'S GET OUT OF HERE FAST!"

"THEY'RE STEWIE'S! A FLYING REPTILE THAT EXISTED A LONG TIME AGO! AND FIFTY MILLION YEARS AGO!"



"IT'S TOO LATE IT'S TIME TO TRY TO LAND WHERE WE CAN HIDE 'EM OFF"



"WHAM! THAT WAS A ROUGH LANDING, BUT THESE BABIES ARE MEAN WE'VE GOT TO GET OUT FAST WHERE WE CAN USE OUR GUNS"

"THERE'S A CAVE—GET AS CLOSE AS YOU CAN AND WE'LL MAKE A RUN FOR IT!"



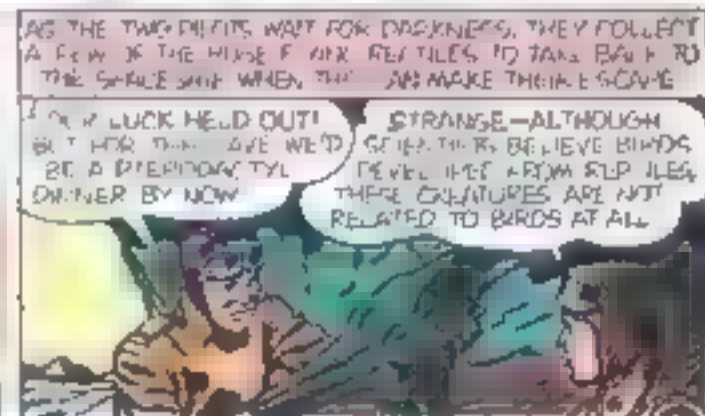
"WE'RE SAFE FROM THEM IN HERE BUT WE'VE GOT TO KEEP THEM OFF THE TOP OF THE MOUNTAIN"

"YIP! THAT'S IT! WE'VE GOT TO KEEP THEM OFF THE TOP OF THE MOUNTAIN"



"WELL WE DRIVE 'EM AWAY AT FIRST BUT THEN WE'VE GOT TO GET BACK IN THE CENTER AND MAKE OUR OWN HOME"

"LOOK AT THE WAY THEY MAKE UP THIS PLACE AT LEAST THERE'S A FEW THINGS TO LIVE ON"



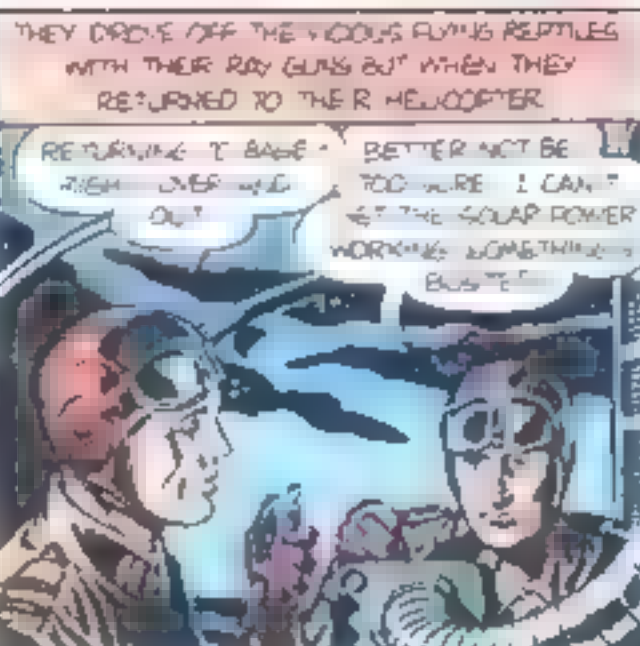
"AS THE TWO DRIFTS WAIT FOR DARKNESS, THEY COLLECT A FEW OF THE HUGE FLYING REPTILES TO TAKE BACK TO THE SPACE SHIP WHEN THEY CAN MAKE THEM SOME"

"OH A LUCKY HELL OUT! BUT FOR THE LOVE WE'D BE A DREAMING TYLE DRIVER BY NOW"

"STRANGE—ALTHOUGH GREAT! THEY BELIEVE BIRDS FEEL LIKE A FEW SLIP JES THESE CREATURES ARE NOT RELATED TO BIRDS AT ALL"



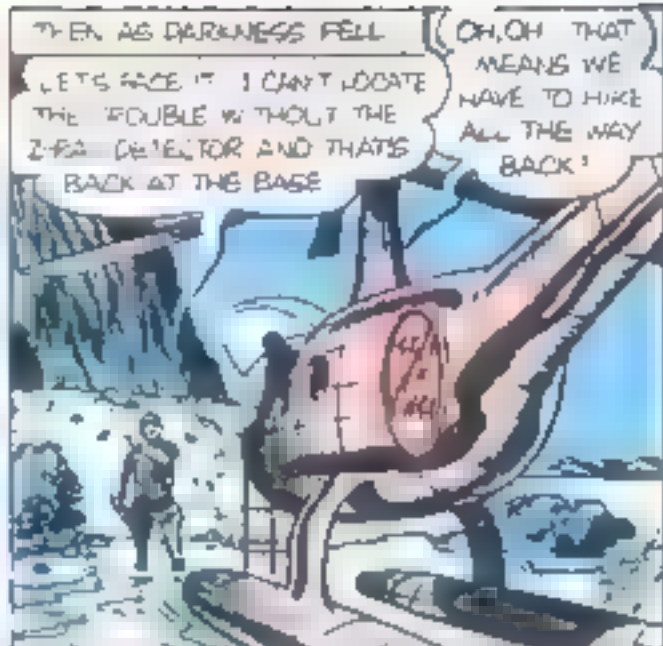
TWO HELICOPTER PILOTS FROM DR ODWYN'S SOLAR-POWERED STEELSHIP ON PLANET X WERE TRAPPED IN A CAVE WHEN PTERODACTYLS FORCED THEIR HELICOPTER DOWN



THEY DROVE OFF THE VIOIOUS FLYING REPTILES WITH THEIR ROY GUNS BUT WHEN THEY RETURNED TO THEIR HELICOPTER

RETURNING TO BASE -
HIGH OVER THE
OUT

BETTER NOT BE
TOO LATE I CAN'T
LET THE SOLAR POWER
WORKING SOMETHING'S
BUSTED



THEN AS DARKNESS FELL
LET'S FACE IT I CAN'T LOCATE
THE DOUBLE WITHOUT THE
Z-PA DETECTOR AND THAT'S
BACK AT THE BASE

OH, OH THAT
MEANS WE
HAVE TO HIKE
ALL THE WAY
BACK!



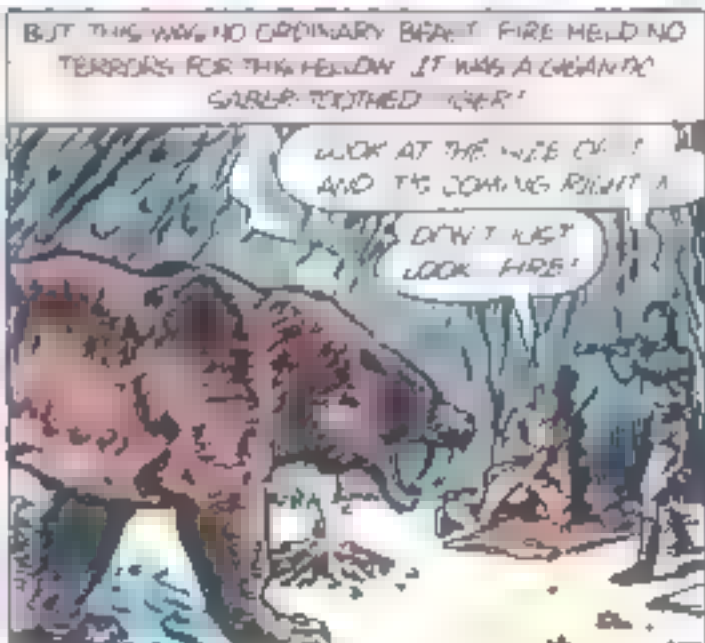
WE'LL TAKE OUR SURVIVAL
GEAR AND STAY IN THE
CAVE UNTIL MORNING

MAYBE THAT
PTERODACTYL
SPECIMEN WILL KEEP
IF WE HIDE IT WAY BACK
IN THE CAVE



JUST HEAR
THAT SOUND
LIKE A LARGE
NUMBER OF FEET
AROUND OUTSIDE

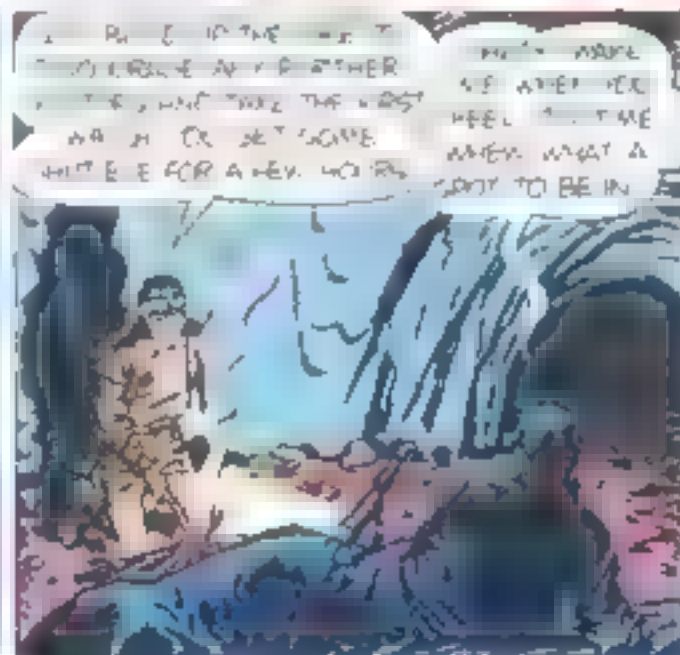
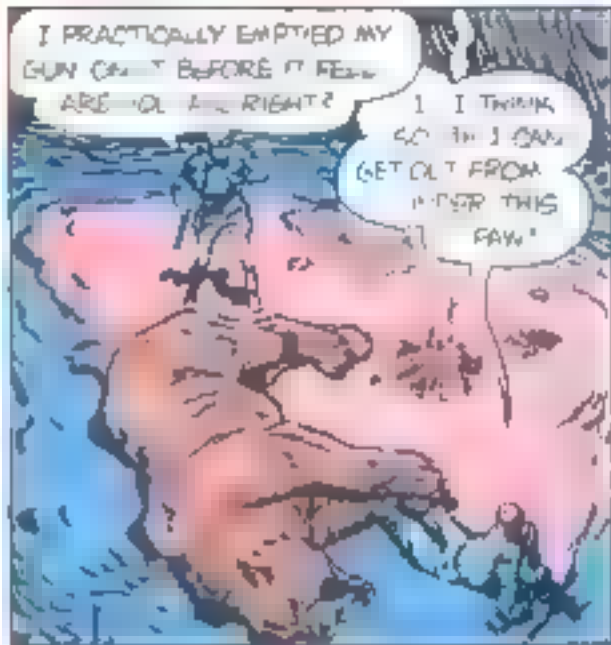
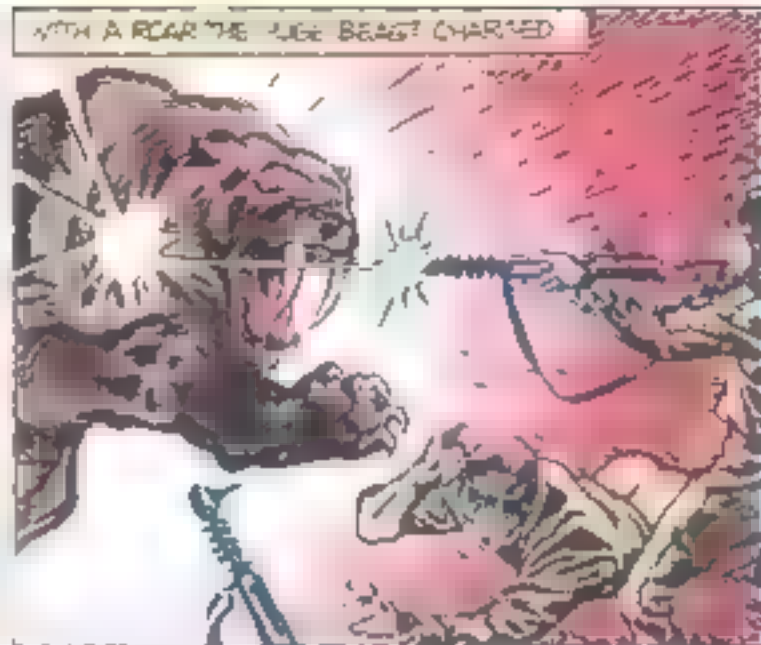
DR BARKER SAYS
THE PTERODACTYL
TO BE A TALL
'ONE' HERE
JUST THE SIDE



BUT THIS WAS NO ORDINARY BEAST FIRE HELD NO
TERRORS FOR THE MEN IT WAS A GIANT
GORILLA-TEXTED GORILLA

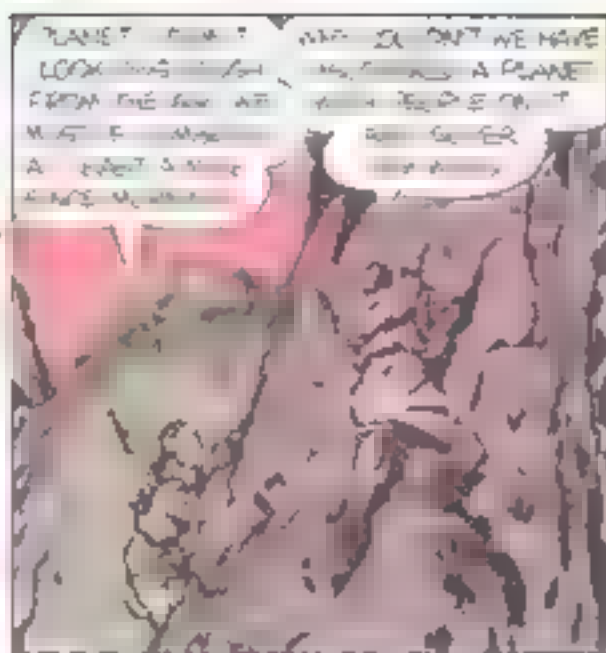
LOOK AT THE WEE CLUT
AND IT'S COMING RIGHT A

DON'T JUST
LOOK FIRE!

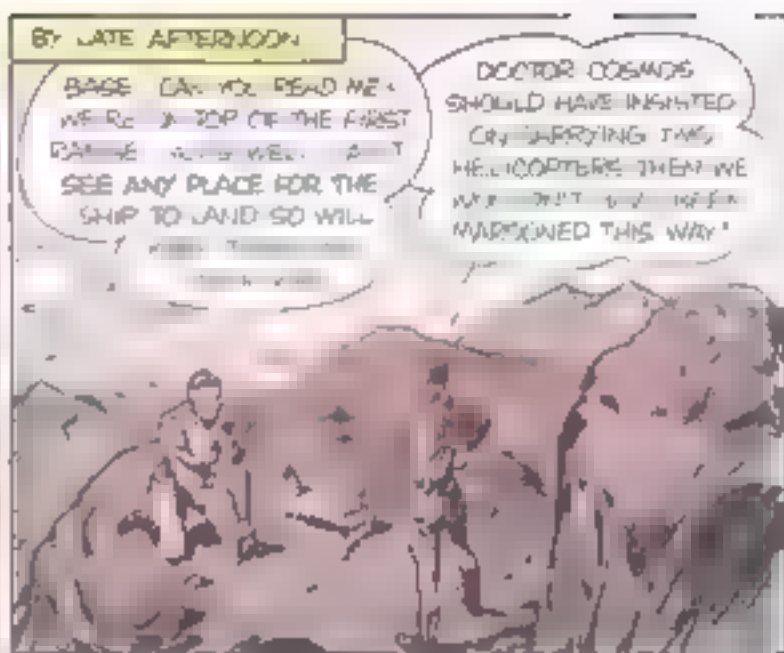




GROUNDING AT LAST
THEIR OLAR PLANE
HELICOPTER HAD
BEEN DISABLED BY
A FLOCK OF HUGE
PIT-RACONS. THE
TWO PILOTS START
THE LONG WALK
BACK TO THEIR
SPACE SHIP BASE



PLANET EARTH
LOOKING FOR A PLANE
FROM THE SKY WE
MUST HAVE
A PLANET
EARTH



BY LATE AFTERNOON

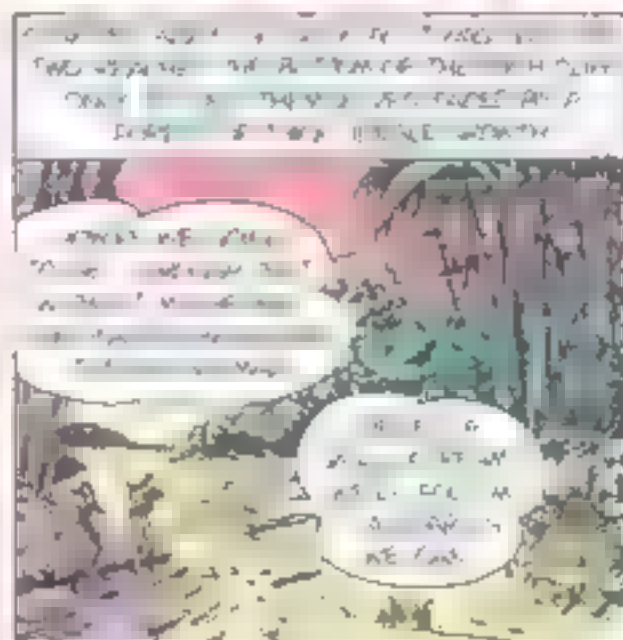
BASE CAN YOU READ ME
WE'RE AT TOP OF THE FIRST
CLIFF AND WE CAN'T
SEE ANY PLACE FOR THE
SHIP TO LAND SO WILL
I HAVE TO

DOCTOR COSMOS
SHOULD HAVE INSISTED
ON CARRYING THE
HELICOPTER THEN WE
WENT TO THE
HARBOR THIS WAY



WE BUT A CAMP HERE FOR THE
NIGHT IT'S A GOOD PLACE
TOO CLOSE TO A FURTHER
IN THE DARK

DON'T TELL ME TO
WATCH OUT FOR THE
SUNSHINE BEING THERE
SUNSHINE THE TALK
OR ANYTHING ELSE



THEY WERE IN A PLACE THE
ONLY WAY TO GET TO THE
SHIP WAS TO GO TO THE
SHIP

THEY WERE IN A PLACE
THE ONLY WAY TO GET TO
THE SHIP WAS TO GO TO
THE SHIP

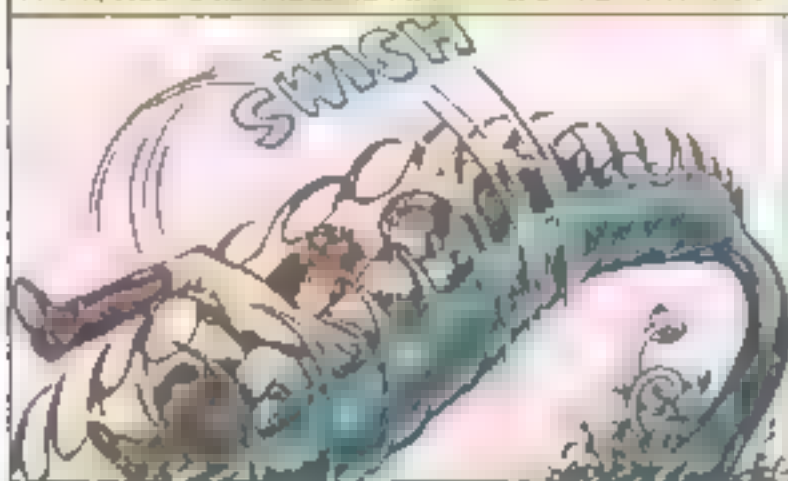
THEY WERE IN A PLACE
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THEY WERE IN A PLACE
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THE SHIP

THEY WERE IN A PLACE
THE ONLY WAY TO GET TO
THE SHIP WAS TO GO TO
THE SHIP

SUDDENLY AS THE LEAD MAN ACCIDENTLY BRUSHED AGAINST
A STRANGE EVIL SMELLING PLANT THERE WAS A SWISH AND



WIT' ALL OF THEM LIKE JIMMY EMMERSON/STANLEY AND
FEDERAL DE MONTAGNE ADELL HIM W HIS BELONG AND



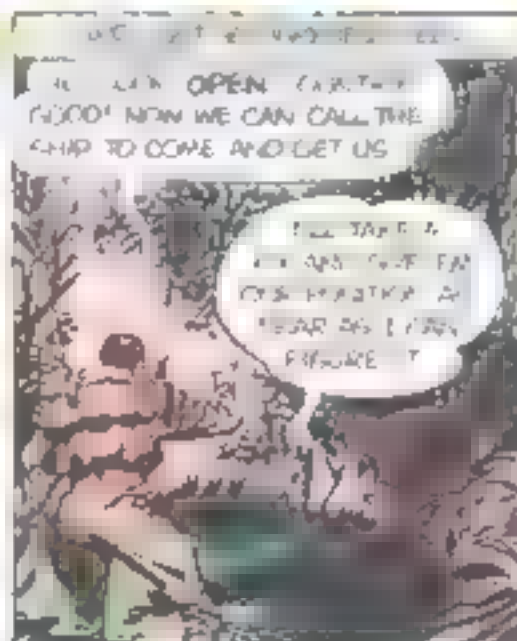
WIT' ALL OF THEM LIKE JIMMY EMMERSON/STANLEY AND
FEDERAL DE MONTAGNE ADELL HIM W HIS BELONG AND



WIT' ALL OF THEM LIKE JIMMY EMMERSON/STANLEY AND
FEDERAL DE MONTAGNE ADELL HIM W HIS BELONG AND



ALL DAY THEY STRUGGLED THROUGH THE TENSE FOREST
WIT' ALL OF THEM LIKE JIMMY EMMERSON/STANLEY AND
FEDERAL DE MONTAGNE ADELL HIM W HIS BELONG AND



ALL DAY THEY STRUGGLED THROUGH THE TENSE FOREST
WIT' ALL OF THEM LIKE JIMMY EMMERSON/STANLEY AND
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ALL DAY THEY STRUGGLED THROUGH THE TENSE FOREST
WIT' ALL OF THEM LIKE JIMMY EMMERSON/STANLEY AND
FEDERAL DE MONTAGNE ADELL HIM W HIS BELONG AND



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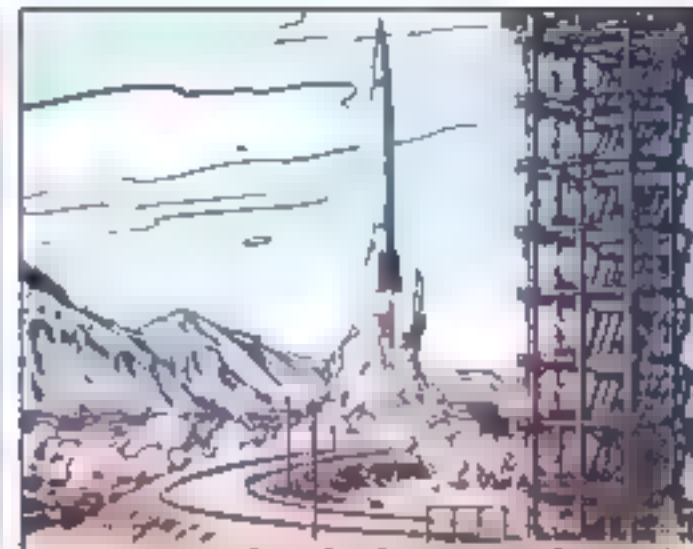


SPACE CONQUERORS!

AN EARTH SATELLITE PROJECT IS UNDER WAY!



THE FIRST STEP IN THE CONQUEST OF SPACE AND ALONG THE LONG ROAD TOWARD EVENTUAL INTERPLANETARY TRAVEL HAS JUST BEEN TAKEN.



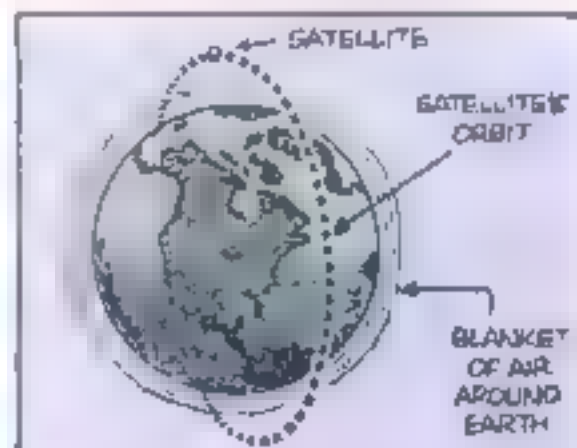
IN JULY OF THIS YEAR TOP SCIENTISTS REVEALED THAT THE UNITED STATES IS WORKING ON FOUR MAJOR PROJECTS TO SPEED CONSTRUCTION OF AN EARTH SATELLITE.



TWO MAIN DESIGNS ARE UNDER STUDY. ONE, A SPHERE ABOUT THE SIZE OF A BASKETBALL, ABOUT $9\frac{1}{2}$ INCHES IN DIAMETER, THE OTHER A STREAMLINED "BASEBALL BAT" ABOUT ONE FOOT LONG.



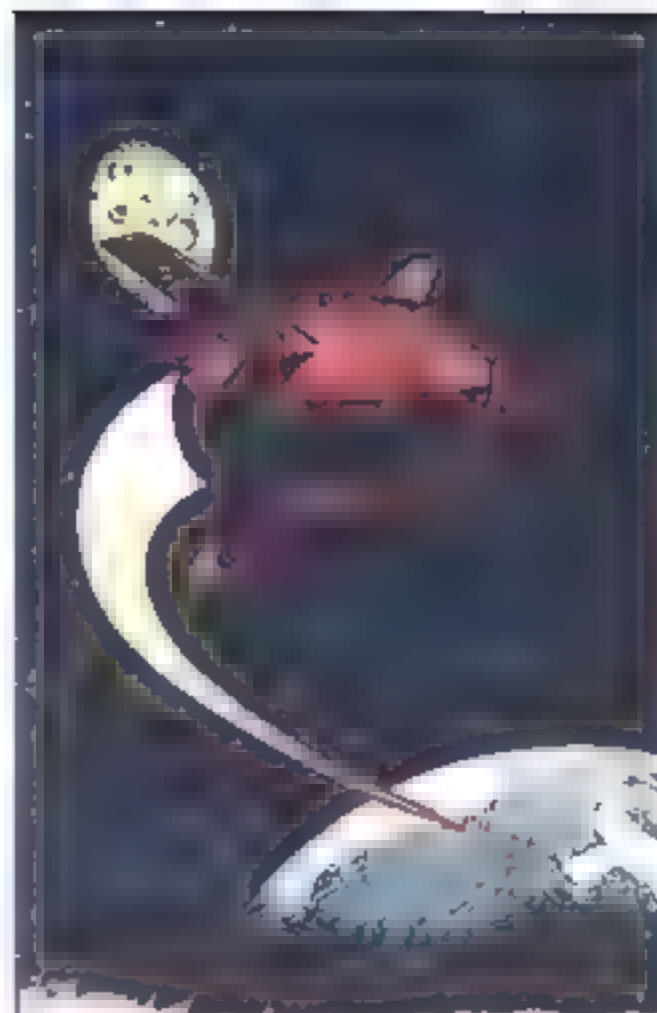
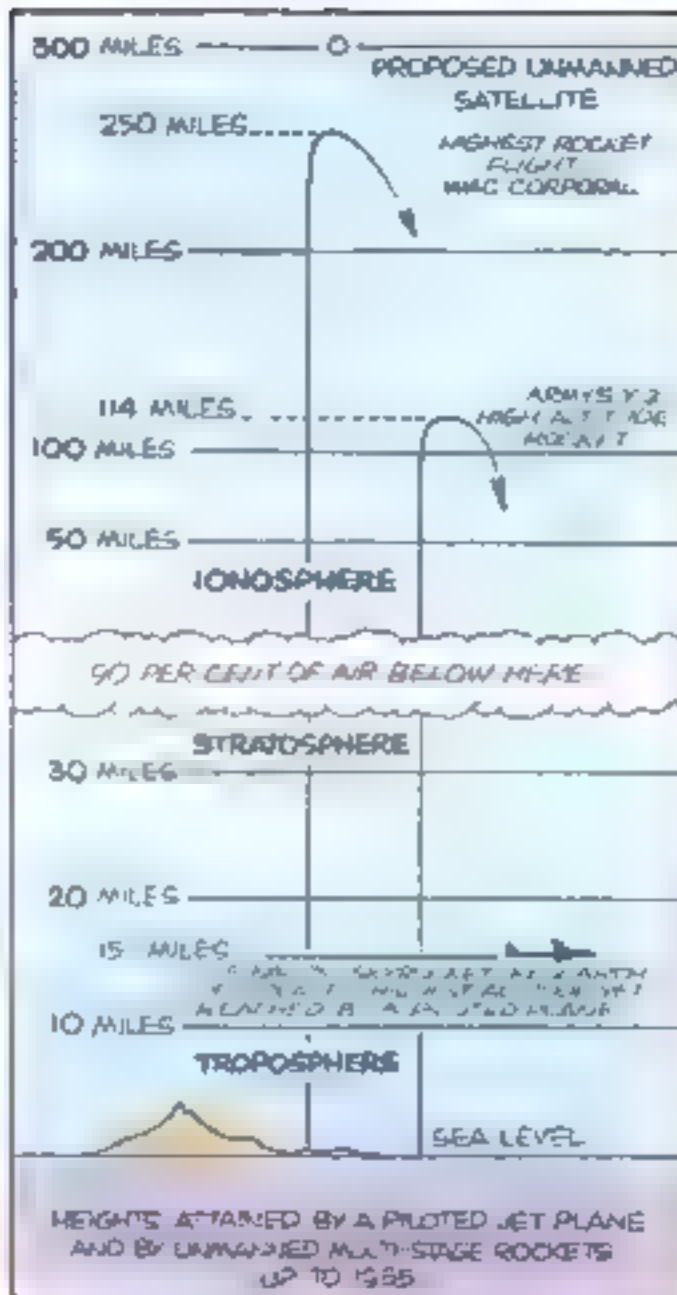
INTENSIVE RESEARCH INTO THE TYPE AND NUMBER OF ROCKETS REQUIRED TO CARRY THE SATELLITE INTO THE ORBITING AREA AND GIVE IT THE NECESSARY INITIAL SPEED IS ALREADY UNDER WAY.



PRESENT PLANS CALL FOR A SATELLITE THAT WOULD REVOLVE AROUND THE EARTH AT A SPEED OF 18,000 MILES PER HOUR AT A HEIGHT OF 300 MILES ABOVE THE EARTH'S SURFACE...CIRCLING THE EARTH ONCE EVERY 90 MINUTES!



AT WHITE SANDS PROVING GROUNDS IN NEW MEXICO, MULTI-STAGE ROCKETS HAVE ALREADY BEEN SENT UP TO ALTITUDES OF MORE THAN 250 MILES. PATRICK AIR FORCE BASE IN FLORIDA ALSO IS CARRYING ON IMPORTANT GUIDED MISSILE PROJECTS.



THIS UNMANNED EARTH SATELLITE, FILLED WITH SCIENTIFIC INSTRUMENTS, WILL BE LAUNCHED WITHIN TWO YEARS. THE RESULTS OF THIS MOMENTOUS PROJECT WILL CERTAINLY LEAD TO THE DISCOVERY OF THE MOON, THEN MARS, AND THEN... WHO KNOWS? WILL MAN EVER REACH THE STARS?



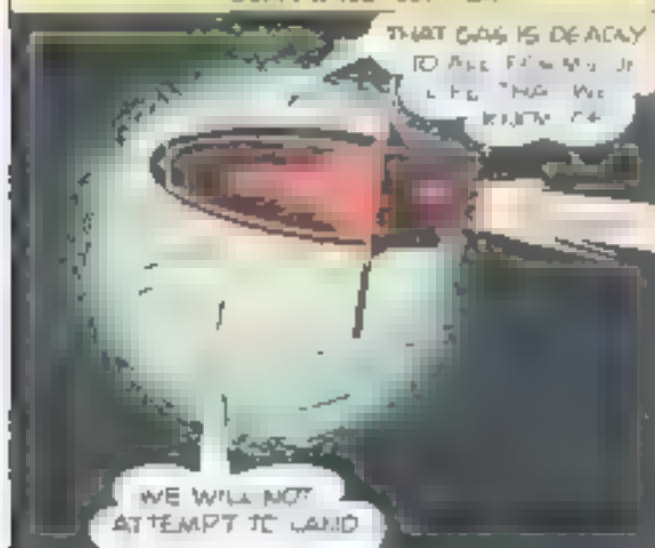
BY A. J. FINE

ALIGHTS ON MARS IN A TERRIBLE
 AT LAST! THE FIRST STEP IN
 THE PLANET OF THE FUTURE! THE
 FIRST STEP IN A NEW
 FROM THEIR HOME PLANET EARTH.



THE FIRST PLANET WE LANDED ON WAS A GREAT DEAL
 THE FIRST PLANET WE LANDED ON WAS A GREAT DEAL
 THE FIRST PLANET WE LANDED ON WAS A GREAT DEAL

THE NEXT ONE WAS ENVELOPED IN A MANLE OF
 METHANE GAS AND AMMONIA CRYSTALS AS IS
 OUR PLANET JUPITER



THAT GAS IS DEADLY
 TO ALL FORMS OF
 LIFE THAT WE
 KNOW OF

WE WILL NOT
 ATTEMPT TO LAND

I DOUBT IF ANY OF US WILL EVER FORGET OUR
 EXPERIENCE IN THE TERRIBLE PLANET OF THE
 CONQUERORS OF THE FUTURE THE CONQUERORS
 OF THE FUTURE THE CONQUERORS



THE FIRST WATER AM. LIFE THOSE ON LARHIP
 MARS BUT THERE ARE NO LIFE
 ARE NO LIFE



THE FIRST WATER AM. LIFE THOSE ON LARHIP
 MARS BUT THERE ARE NO LIFE
 ARE NO LIFE

"SUDDENLY THE RADAR WARNING SYSTEM FLASHED THE EMERGENCY DANGER SIGNAL."

"SHEERLY ALL LANDING PARTS TO RETURN TO THE SHIP ON THE DAY OF A METEOR IS NEARBY RIGHT FOR US."



"WE ALL RACED BACK TO THE SHIP AS FAST AS WE COULD IN OUR ANKWARD SPACESUITS AND ZOOMED OFF THAT UNFRIENDLY PLANET JUST IN THE MICK OF TIME."



"THAT METEOR SLAMMED DOWN IN A FLAMING CRASH RIGHT WHERE OUR SHIP HAD BEEN PARKED!"



"THAT WAS THE FIRST TIME I EVER SAW A METEOR CRASH. IT WAS A SPECTACULAR SIGHT. I HAD HEARD OF METEORS BEFORE, BUT NEVER ONE THAT CRASHED SO CLOSE TO US. IT WAS A TRULY UNUSUAL EVENT."



"I HAD HEARD OF THE MANY METEORS THAT CRASHED IN THE SKY, BUT NEVER ONE THAT CRASHED SO CLOSE TO US. IT WAS A TRULY UNUSUAL EVENT."



"AND FINALLY THE GREEN GLOBE OF EARTH CAME AHEAD. THE LONG VIBRANT ORIGIN OF THE FINE AWAY CONSTITUTION OF A NEW CERTAINLY A NEW."

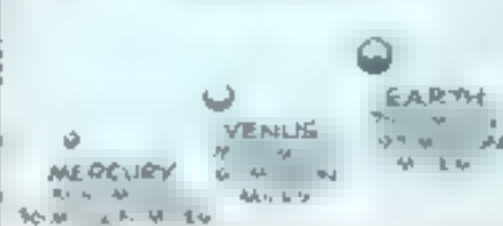




FIRST STEP IN OUR CONQUEST OF SPACE WILL BE THE LAUNCHING OF AN EARTH SATELLITE ABOUT THE SIZE OF A BASKETBALL FILLED WITH INSTRUMENTS. THE SATELLITE WILL FURNISH INFORMATION TO HELP US BUILD A MANNED SPACE STATION FROM WHICH TO EXPLORE THE MOON AND PLANETS OF OUR SOLAR SYSTEM.

NEARBY ARE THE LONE PLANETS OF THE SOLAR SYSTEM. IF THEY ARE LARGER THAN EARTH, ALL THE IF THEY ARE SMALLER THAN EARTH, THEY ARE SMALLER THAN EARTH. IF THEY ARE SMALLER THAN EARTH, THEY ARE SMALLER THAN EARTH.

THE FIRST MARCH OF THE SPACE SHIP TO THE MOON. THE SHIP LAUNCHES FROM THE EARTH AND TRAVELS TOWARD THE MOON.



JUPITER

MASS 318 TIMES EARTH'S MASS

URANUS 28,426 MILES 783 MILLION MILES

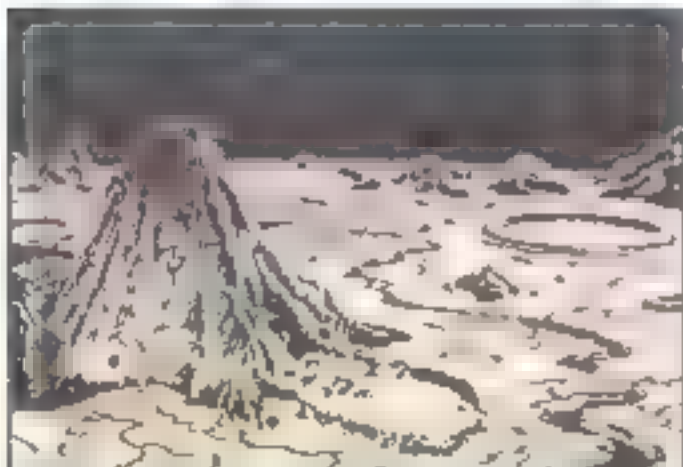


PLUTO 3,668 MILES 3,668 MILLION MILES

NEPTUNE 2,855 MILES 2,855 MILLION MILES

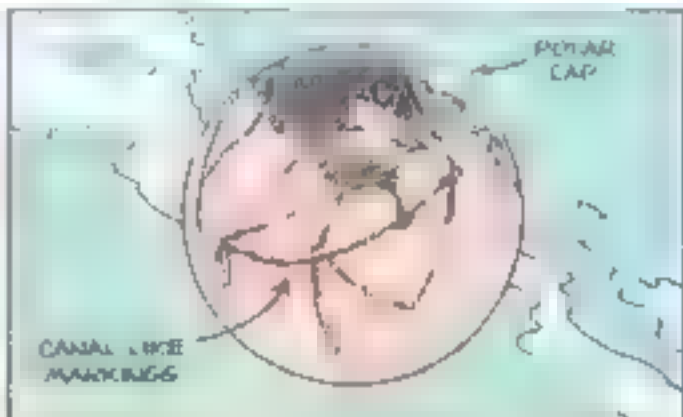
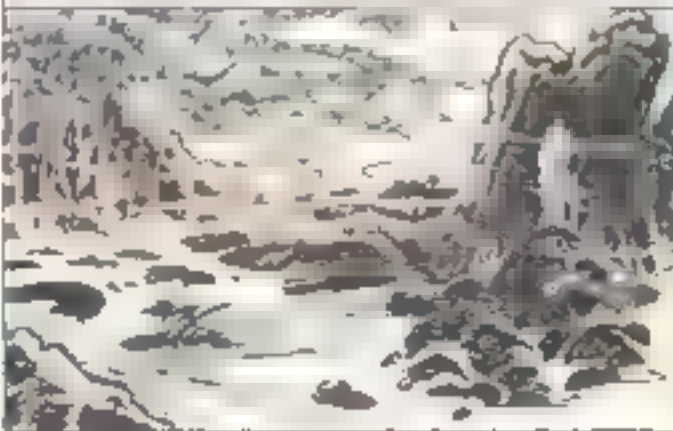


SATURN 95 TIMES EARTH'S MASS 887 MILLION MILES

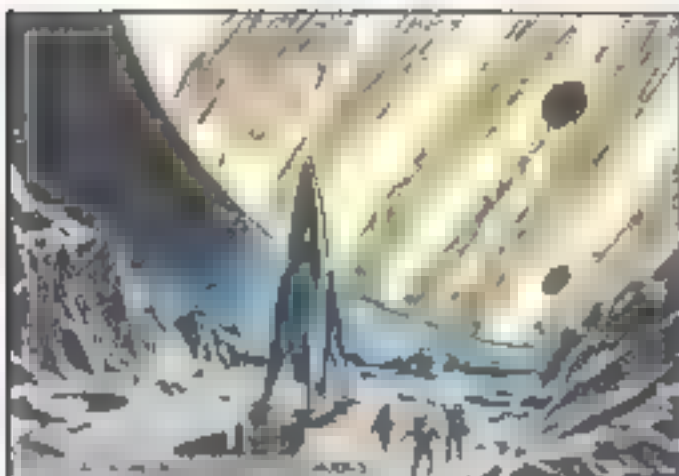


MERCURY ALWAYS KEEPS ONE SIDE TOWARD THE SUN. ON THIS BRIGHT SIDE THE TEMPERATURES ARE HOT ENOUGH TO MELT LEAD (800°F). THE DARK SIDE MAINTAINS A CONSTANT 450° BELOW ZERO TEMPERATURE. MERCURY IS A DEAD WORLD WITHOUT ATMOSPHERE, SKY, COLOR, OR WEATHER.

VENUS, THE MORNING AND EVENING STAR, IS NOT ACTUALLY A STAR, BUT A PLANET. WHEN NEAR THE EARTH, IT IS THE PLANET VISIBLE TO THE NAKED EYE. WHEN FAR FROM THE EARTH, IT IS THE PLANET VISIBLE TO THE NAKED EYE. WHEN NEAR THE EARTH, IT IS THE PLANET VISIBLE TO THE NAKED EYE. WHEN FAR FROM THE EARTH, IT IS THE PLANET VISIBLE TO THE NAKED EYE.

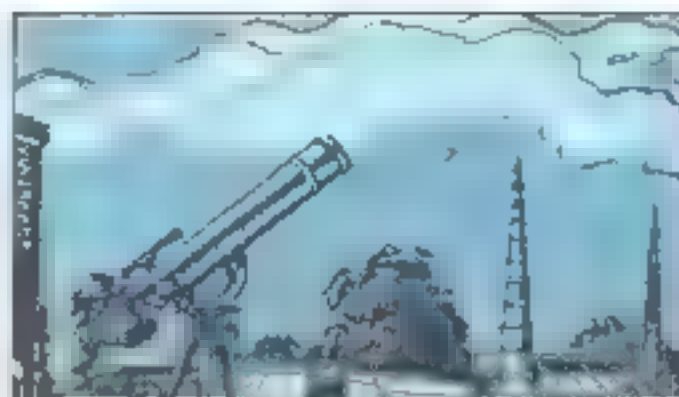


MARS HAS A THIN ATMOSPHERE WHICH COULD SUSTAIN SOME LIFE AS WE KNOW IT. THIS PLANET IS COLDER THAN EARTH, BUT IT MAY HAVE SEASONS. IT CHANGES COLOR AT CERTAIN TIMES OF THE YEAR, AND WHITE CAPS AT THE POLES INCREASE AND DECREASE REGULARLY. ITS 'CANALS' ARE UNUSUAL LINES WHICH SOME ASTRONOMERS HAVE SEEN AND OTHERS HAVE NOT.

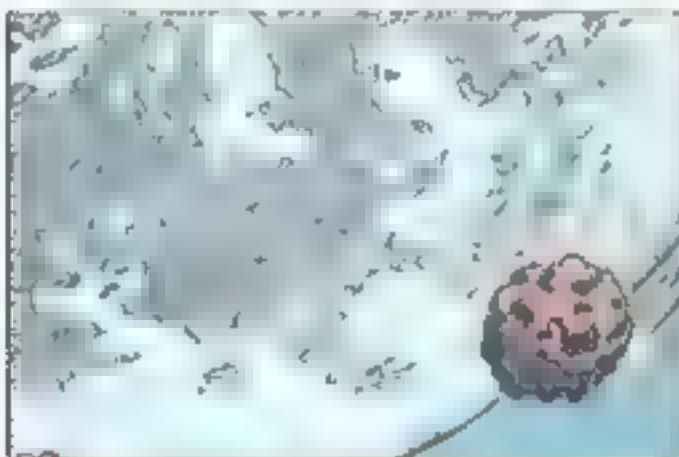


JUPITER THE GIANT IS SEEN IN BRILLIANT WHITE VENTURE. IT HAS EIGHT MOONS AND AN ATMOSPHERE PROBABLY COMPOSED OF METHANE, HYDROGEN AND CLOUDS OF FROZEN AMMONIA. AT LEAST TWO OF THE MOONS, IF ILLUMINATED CAN BE SEEN THROUGH THE WEAKEST TELESCOPE.

SATURN WITH ITS DUST CLOUD RINGS IS THE MOST COLORFUL PLANET. IT ALSO HAS NINE MOONS. TITAN, LARGEST OF THESE IS ALMOST THE SIZE OF MARS. ONE MOON ROTATES IN THE OPPOSITE DIRECTION FROM THE OTHERS AND FROM ALL THE PLANETS IN OUR SOLAR SYSTEM. THERE IS A HYDROGEN AND METHANE ATMOSPHERE HERE.



URANUS, NEPTUNE, AND PLUTO WERE DISCOVERED IN DIFFERENT CENTURIES. URANUS WAS NOTED IN 1781 AND NEPTUNE ABOUT 1846. AFTER PLUTO WAS DISCOVERED IN 1930, BECAUSE OF THEIR GREAT DISTANCE FROM US VERY LITTLE IS KNOWN ABOUT THESE PLANETS. URANUS AND NEPTUNE APPEAR GREEN IN COLOR, WITHOUT MARKINGS. ONCE CALLED THE "DARK PLANET," PLUTO'S COLOR IS STILL UNKNOWN.



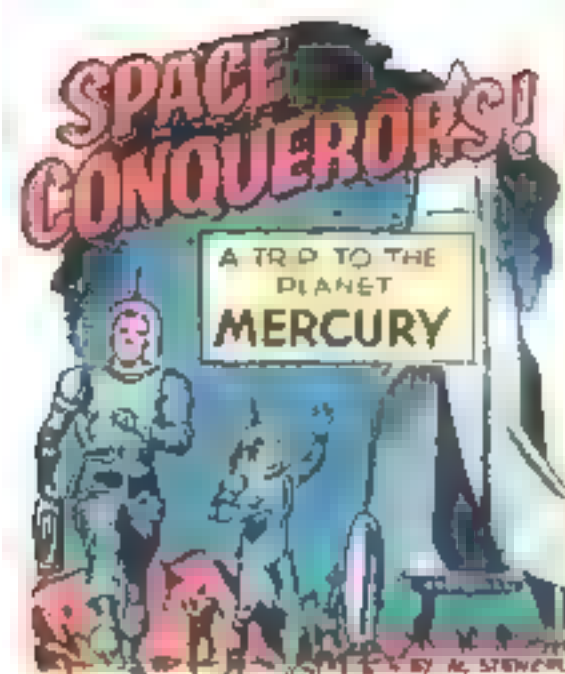
WAS THE EARTH AN UNDISCOVERED SECOND MOON? SOME ASTRONOMERS BELIEVE SO. ONE SO SMALL AND SPEEDY IT IS INVISIBLE AGAINST THE DAYTIME SKY AND HIDDEN IN THE EARTH'S SHADOW AT NIGHT. IF THERE IS SUCH A MOON, COULD IT BE USED AS A SPACE STATION? OR MUST A STATION BE BUILT?



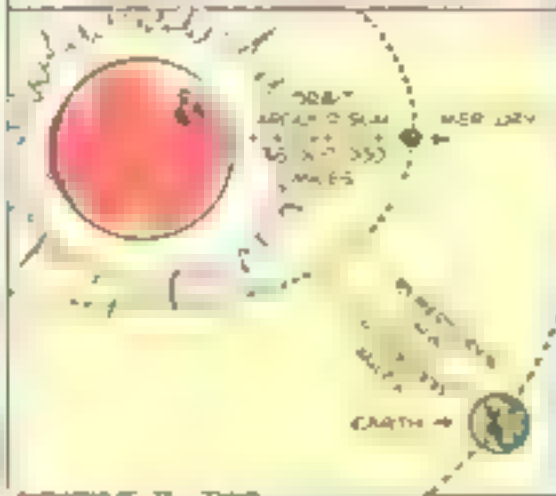
HOW SOON WILL MAN HAVE A SPACE SHIP WHICH CAN TAKE HIM TO THE MOON? TEN YEARS, SAY SOME AUTHORITIES. WHENEVER IT IS BRAVE MEN, EXPERTS IN MANY SCIENTIFIC FIELDS, WILL ACCOMPLISH THE FEAT.



HEY! PERHAPS A MINING COMPANY ON THE MOON, OR A HUGE BASE FOR FURTHER PLANETARY EXPLORATION. AND, OF COURSE, A BOY SCOUT TROOP, SPONSORED BY THE LUNAR COLONISTS MEN'S CLUB.



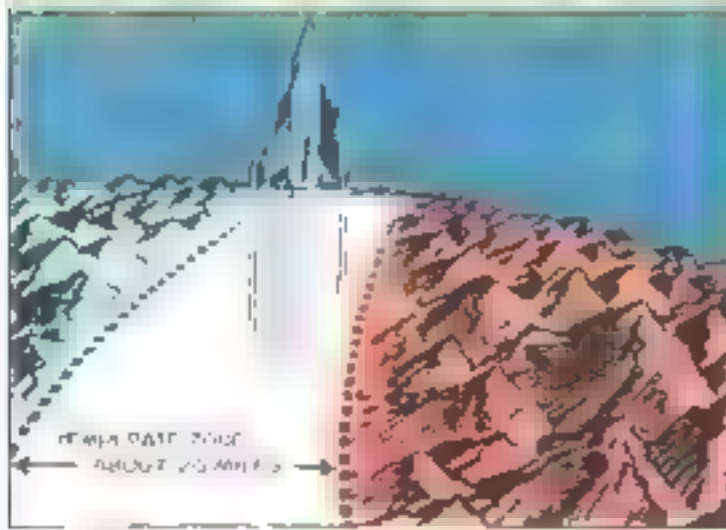
OUR TRIP TO MERCURY WILL BE A VERY HARD JOURNEY. FIRST WE MUST GET THE NEARNESS OF THAT SMALL PLANET TO THE SUN. EXTREME HEAT PROTECTION WILL BE NECESSARY & A VERY SERIOUS GRAVITY KICK-OUT.



SECOND BECAUSE OUR SHIP'S SPEED OF 18.5 MILES PER SECOND, NECESSARY FOR IT TO LEAVE EARTH, MUST BE INCREASED TO MATCH MERCURY'S SPEED ON ITS ORBIT AROUND THE SUN OF 30 MILES PER SECOND.



AT RELEASE MERCURY WILL BE ON A PATH THAT WILL BE A STEADY INCREASE TO A SPEED OF 30 MILES PER SECOND. AT THIS POINT WE MUST LAND ON A FLAT AREA OF THE PLANET.



THE MERCURY SURFACE IS A VERY HOT & DRY PLACE. THERE IS NO AIR OR WATER. THE TEMPERATURE IS ABOUT 800 DEGREES FAHRENHEIT. THE GRAVITY IS ONLY 1/3 OF EARTH'S. THE SURFACE IS COVERED IN CRATERS & ROCKS.



THE MERCURY SURFACE IS A VERY HOT & DRY PLACE. THERE IS NO AIR OR WATER. THE TEMPERATURE IS ABOUT 800 DEGREES FAHRENHEIT. THE GRAVITY IS ONLY 1/3 OF EARTH'S. THE SURFACE IS COVERED IN CRATERS & ROCKS.



SPACE CONQUERORS!

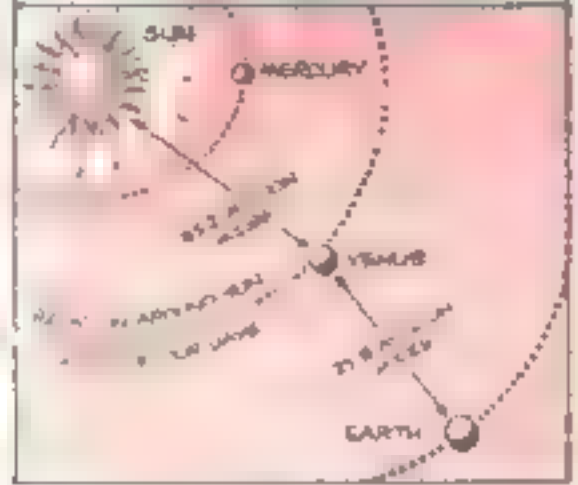
WE VISIT THE PLANET VENUS



CAUTION! DON'T BREATHE AND BE READY TO RUN! IT'S HOT! THE SURFACE OF VENUS MAY BE EXTREMELY HOT THE ABSENCE OF WATER VAPOR IN THE ATMOSPHERE LEADS US TO BELIEVE THAT VENUS HAS A HOT ARID WASTELAND LIKE SURFACE BARE OF VEGETATION!



VENUS HAS A DIAMETER OF 7600 MILES, ONLY 200 MILES LESS THAN EARTH'S, YET ITS MASS IS ONLY 80% THAT OF OUR EARTH. IT HAS A DENSE ATMOSPHERE WHICH REFLECTS THE SUN'S RAYS SO BRIGHTLY THAT WE CANNOT OBSERVE ITS SURFACE.



IN 1973, A NUMBER OF RIVER BEDS NOTED A DEEPER CUTTING OF SOME THINGS ON THEIR THROUGH ALL OF WHICH GROUND IN THE RIVER BEDS.

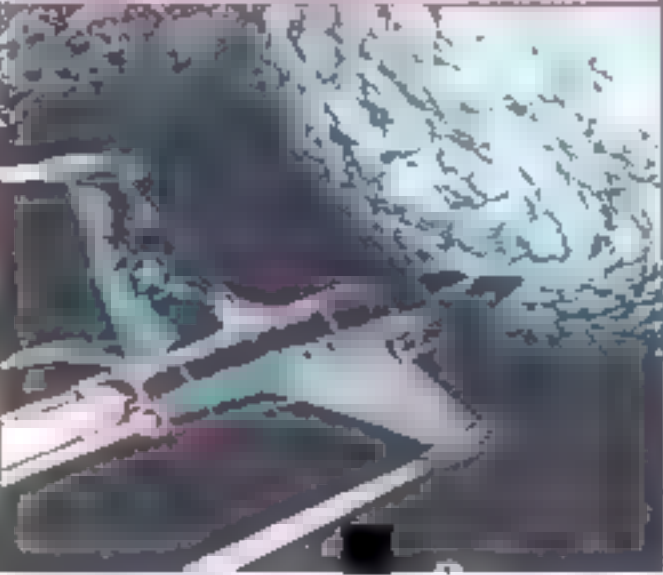


SOME EXPERTS SAID IT WAS A 40 MILE HIGH MOUNTAIN RANGE THAT IT WAS A CHAIN OF VOLCANIC EXPLOSIONS TO THE SURFACE IN 1971 THE RIVER BEDS WERE NOTED FROM THE WENT WILSON OBSERVATORY.

ANY SPECULATION ABOUT CONDITIONS ON VENUS IS PURE GUESSWORK. WE KNOW THERE ARE LARGE AMOUNTS OF CARBON DIOXIDE IN ITS ATMOSPHERE BUT NO WATER VAPOR HAS YET BEEN NOTED.



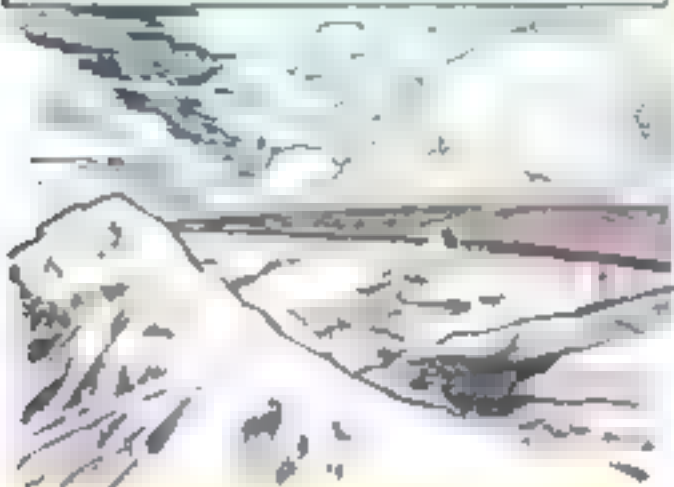
HOW FAR WE WILL POSSIBLY NEVER KNOW UP AT THE SURFACE OF VENUS IS LIKE 2. THE FIRST STEP WAS TO GET THERE AND WE DON'T KNOW HOW TO GET THERE.



WILL THEY FIND ANIMAL OR PLANT LIFE ON VENUS? WILL THEY FIND NOTHING BUT HOT DRY DISCUSSION OR WILL THEY FIND A LUSH STEAMING JUNGLE TEEMING WITH AMPHIBIOUS REPTILES? WE CAN ONLY WAIT (AND GUESS!)



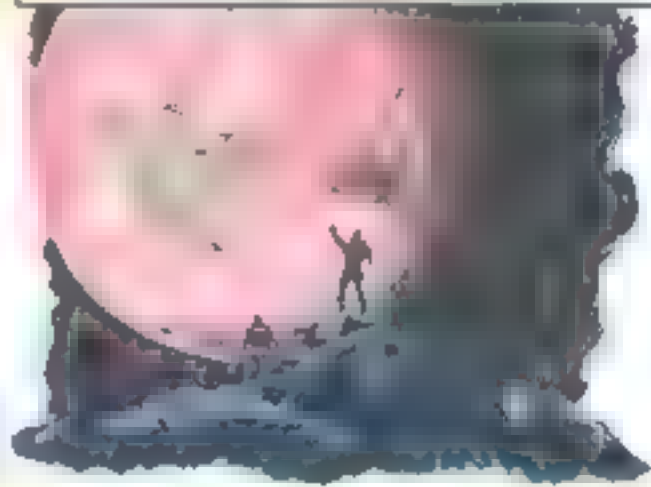
WE SKIM OVER ONE OF MARS POLAR CAPS. IT IS COVERED WITH SNOW BUT ONLY TO A DEPTH OF A FEW FEET, NOT LIKE EARTH'S ICE CAPS. BUT WE REALIZE THERE IS WATER ON MARS EVEN THOUGH THREE FOURTHS OF ITS SURFACE IS DESERT.



MARS HAS TWO MOONS. "S FARTHEST" ONE DEIMOS IS ONLY ABOUT FIVE MILES IN DIAMETER. IT IS ABOUT 2500 MILES AWAY AND CIRCLES THE PLANET EVERY TWENTY HOURS. FROM THE SURFACE OF MARS IT APPEARS ONLY AS A BRIGHT STAR.



"S NEARER ONE PHOBOS IS ABOUT TWICE THAT SIZE AND IS ONLY APPROXIMATELY 3700 MILES AWAY. IT CIRCLES MARS ONCE EVERY SEVEN AND A HALF HOURS. WE WOULD THERE TO GET A GOOD VIEW OF THE WHOLE PLANET.



OUR RADIO MAN SENDS A MESSAGE TO EARTH WHICH TAKES FOUR MINUTES AND TWENTY SECONDS TO TRAVEL THE DISTANCE (ROUGHLY 35,000,000 MILES AWAY AT ITS NEAREST APPROACH 75,000,000 MILES AT ITS FARTHEST).



AT 10:00 AM ON MONDAY, AUGUST 4, 1964, THE MARINER 4 SPACECRAFT LAUNCHED FROM EARTH. IT WAS THE FIRST MAN-MADE OBJECT TO BE SENT TO MARS. THE SPACECRAFT WAS LAUNCHED ON A JET-POWERED ROCKET AND WAS ON ITS WAY TO MARS.



MARS WAS CLOSEST TO EARTH EARLY IN SEPTEMBER OF THIS YEAR AND WILL AGAIN COME CLOSE TO EARTH IN AUGUST OF 1965. IF BY THEN WE DO NOT HAVE SPACE SHIPS THAT CAN MAKE THE LONG JOURNEY TO MARS, PERHAPS WE WILL HAVE ESTABLISHED A TELESCOPE ON THE MOON THAT WILL REVEAL THE SECRETS OF OUR ROMANTIC NEIGHBOR MARS.

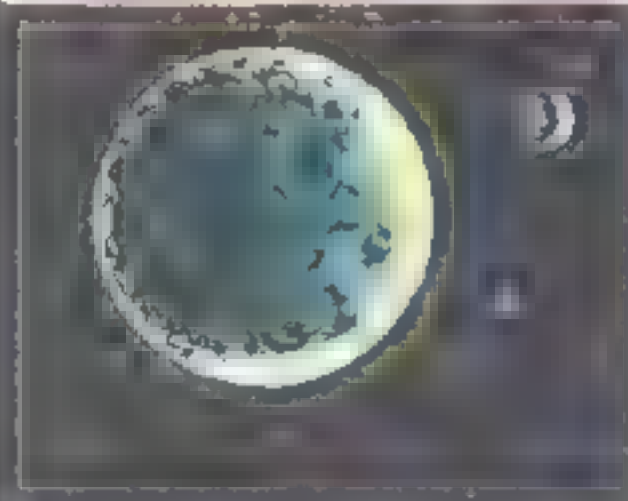


SPACE CONQUERORS!

BY AL SPENZEL

DERELICTS OF SPACE

WHY WHEN THE NEW "PLANET" WAS FOUND IN 1930 WAS IT ONLY TO BE CALLED CERES? WELL, SINCE IT WAS TOO SMALL TO BE LISTED AS A PLANET IT WAS CALLED A "PLANETOID" OR AN "ASTEROID" WHICH MEANS "MINOR PLANET" AND IT WASN'T UNTIL 1978



FOR MANY YEARS, ASTRONOMERS PUZZLED OVER THE BIG GAP (NEARLY 35 MILLION MILES) BETWEEN THE ORBIT OF MARS AND THE ORBIT OF JUPITER. ALL THE OTHER KNOWN PLANETS WERE SPACED AT FAIRLY REGULAR DISTANCES FROM EACH OTHER, RELATIVE TO THEIR DISTANCE FROM THE SUN. WHY THEN THIS DISPARITY ONLY BETWEEN MARS AND JUPITER?



IT WAS NOT UNTIL JANUARY, 1801, THAT AN ASTRONOMER NAMED PIAZZI DISCOVERED A NEW "PLANET" IN THE GAP BETWEEN MARS AND JUPITER.



THE FIRST ED. CEREUS. IT WAS A. PIAZZI'S AND THE SEARCH FOR MORE ASTEROIDS BEGAN. A FEW YEARS LATER THERE WERE THOUSANDS OF THEM. TODAY THERE ARE NOW 250,000



WHEN ANY ONE WENT ATTEMPTED TO RE-SCIENCE RESEARCHING A. PIAZZI HE WOULD HAVE MORE AND MORE WERE FOUR YEARS THERE ARE ABOUT ONE THOUSAND FORTY-NINE RANKING IN SIZE FROM CEREUS THE LARGEST AND ALL THE WAY DOWN TO THE LITTLEST ONE LIKE A LITTLE DUST

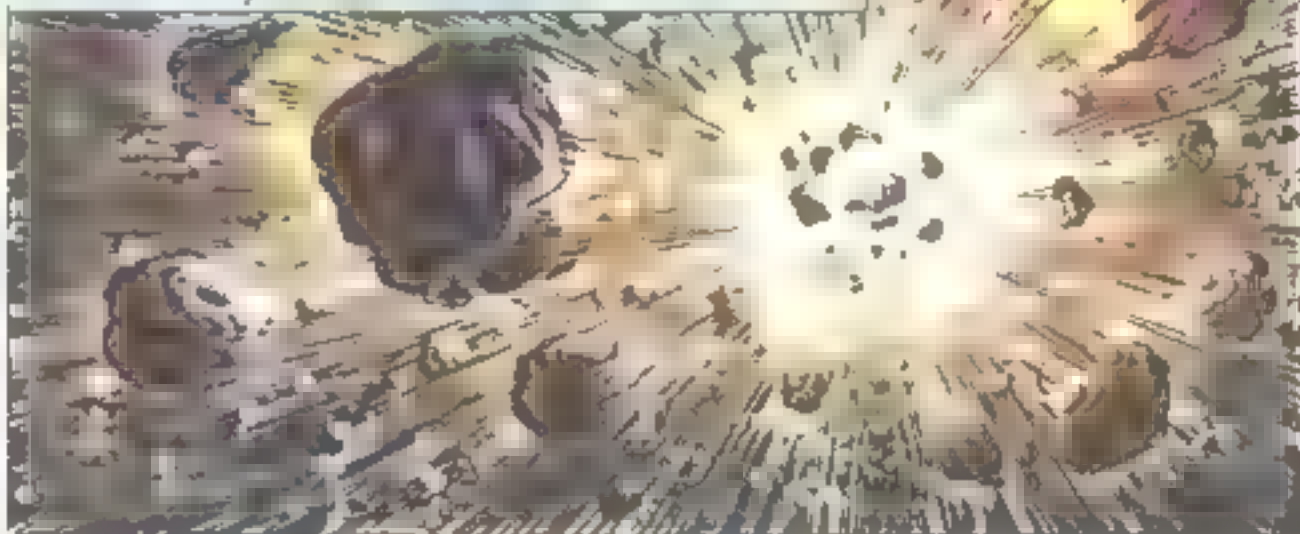


THESE ARE VERY SMALL THINGS, MORE SO SMALL THEY CAN'T BE SEEN FROM EARTH. ALL ARE BARREN, WITHOUT AIR OR WATER. JUST CHUNKS OF JAGGED ROCKS EACH CIRCLING AROUND THE SUN ON ITS OWN REGULAR ORBIT.

MOST OF THE ASTEROIDS FORM A BELT BETWEEN MARS AND JUPITER. SOME TAKE SIX YEARS TO ORBIT AROUND THE SUN. SOME ONLY THREE. SOME COME QUITE CLOSE TO EARTH. HERMES, ONLY ONE MILE IN DIAMETER, HAS AN ORBIT THAT COULD BRING IT WITHIN SEVERAL MILES OF EARTH.



THERE IS MUCH SPECULATION ABOUT THE ORIGIN OF THE ASTEROIDS. MOST ASTRONOMERS BELIEVE THEY WERE ONCE PART OF A SINGLE PLANET THAT WAS PULLED APART SOME WAY OR EXPLODED FROM SOME UNKNOWN CAUSE.



PERHAPS THE UNKNOWN PLANET CAME TOO CLOSE TO GIANT JUPITER AND WAS TORN APART BY ITS STRONG ENORMOUS GRAVITATIONAL FIELD. SOME THINK IT FELL INTO JUPITER AND REMAINS THERE AS IT WAS.



OR MAYBE IT WAS ONCE A SINGLE PLANET. SOME THINK IT WAS ONCE PART OF A SINGLE PLANET THAT WAS PULLED APART SOME WAY OR EXPLODED FROM SOME UNKNOWN CAUSE.

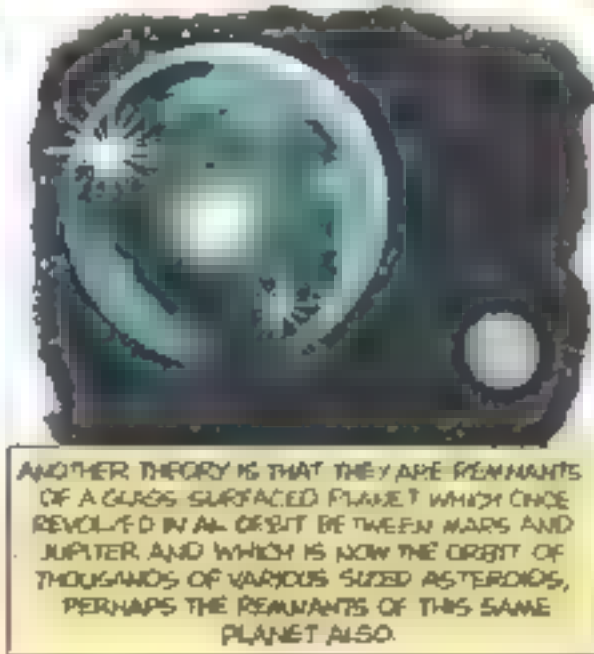
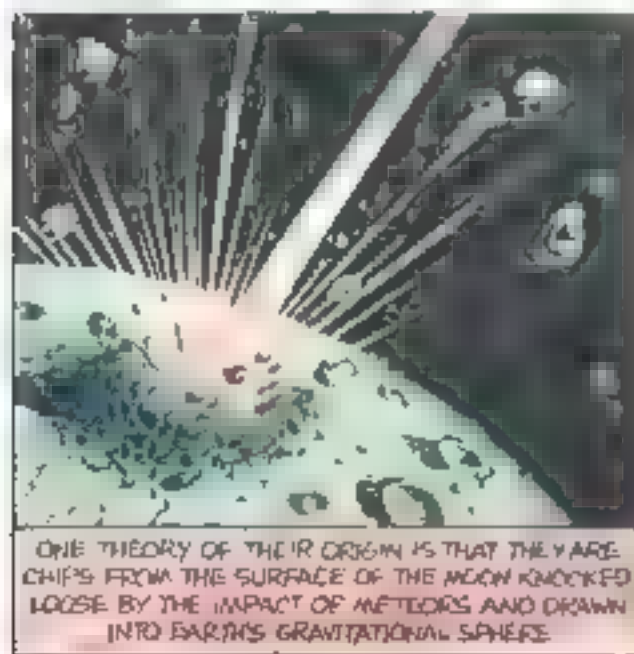


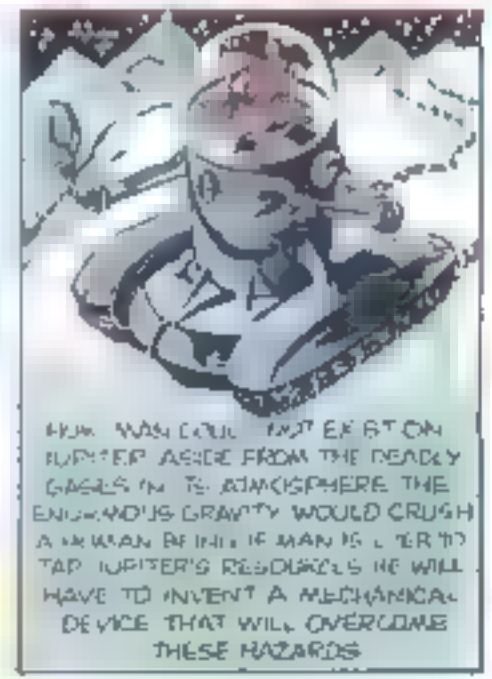
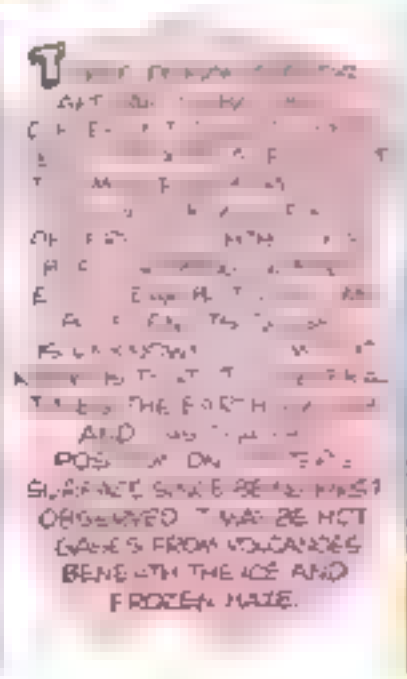
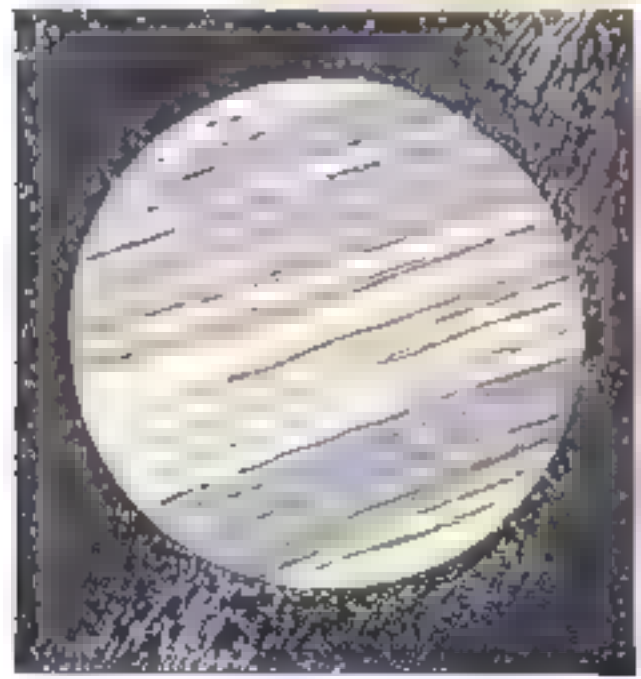
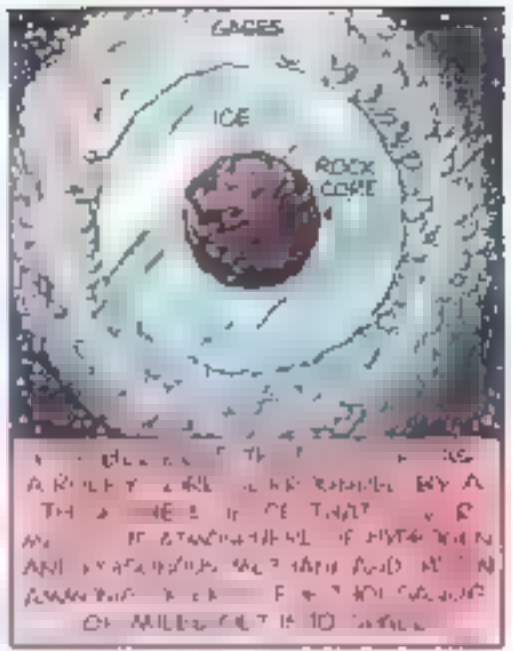
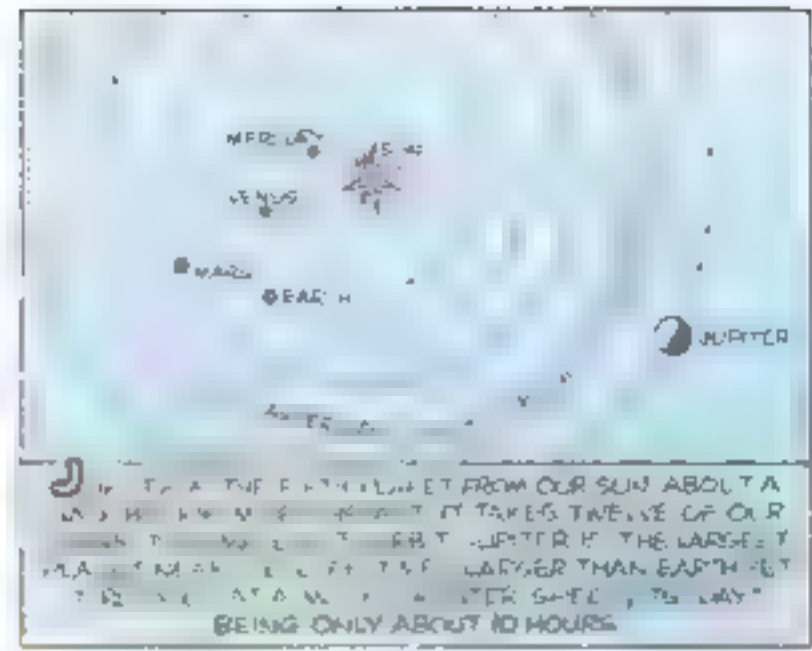
WHAT EVER THE CAUSE, ASTEROIDS WILL BE A MAJOR HAZARD TO SPACE TRAVEL. ALTHOUGH WEAT IT MAY BE SEPARATE THE CHIPS WE HAVE BEEN ABLE TO MAKE WE DON'T KNOW HOW MANY MORE THERE ARE. IT'S A THING THAT BELT.





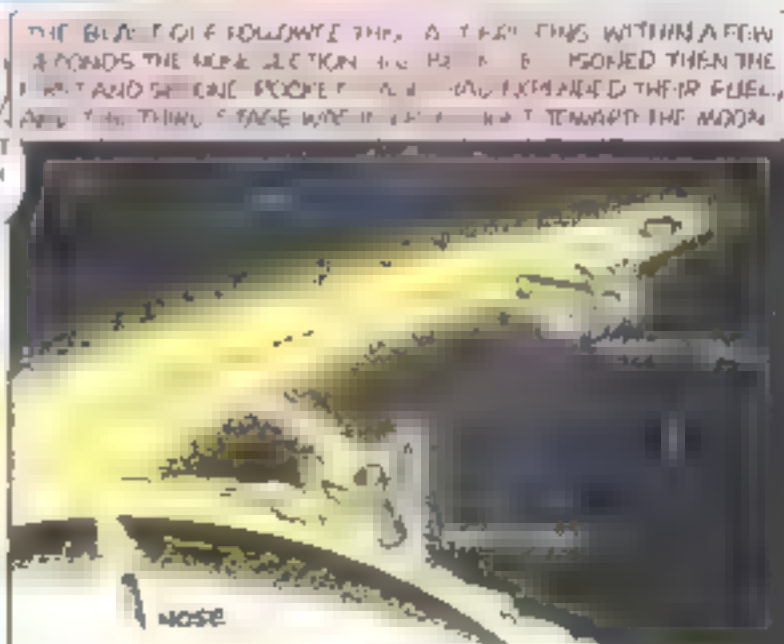
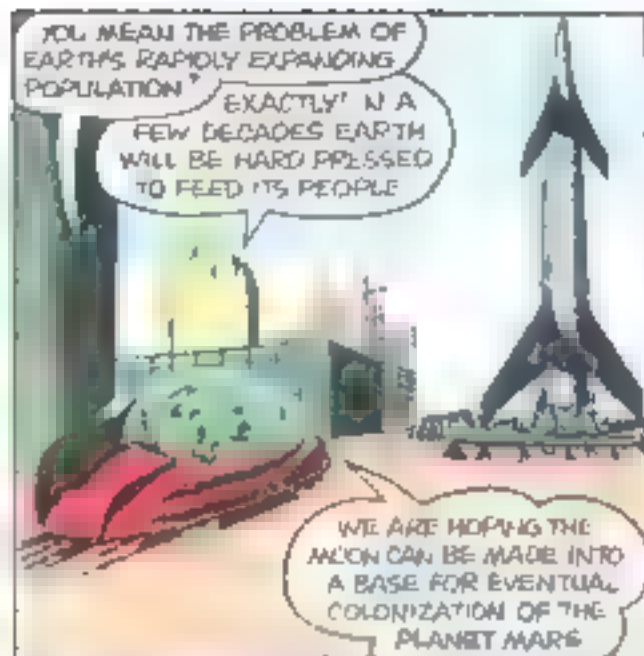
BY AL STENZEL



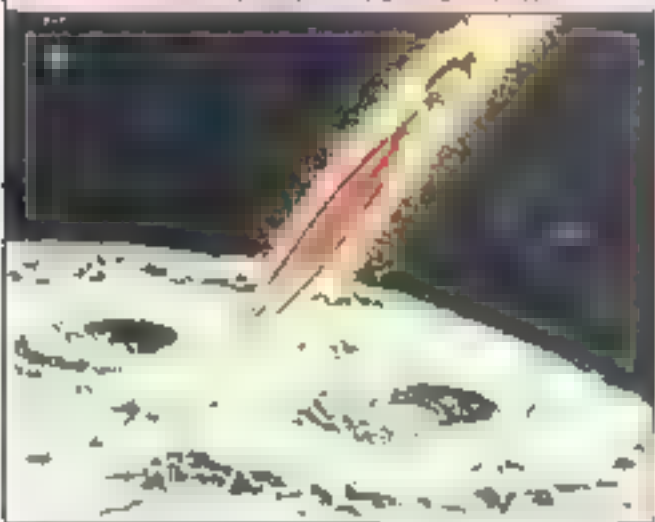




THE FIRST CREW SAVING THE EARTH IS READY TO BE LAUNCHED ON ITS DESTINATION THE MOON YET, IF WE WARM UP OUR HANDS, THE PLANETS AND BILLIONS OF DOLLARS HAVE BEEN EXPENDED TO MAKE THIS FIRST ATTEMPT POSSIBLE THE FATE OF ALL MANKIND MAY WELL DEPEND ON ITS SUCCESS THE DATE IS JULY 4th, 2057!



IN ABOUT TEN HOURS THE ROCKET SHIP HAD REACHED THE MOON, APPROXIMATELY 237,000 MILES FROM EARTH. THE NOSE ROCKETS SLOWED THE FALL AND THE FIRST HUMANS LANDED ON LUNA.



WHILE BACK ON EARTH...

THEY HAVE LANDED. AMERICA WILL NOW PROCLAIM THE MOON AS HER TERRITORY. SO FAR ALL OUR ATTEMPTS TO SABOTAGE THIS PROJECT HAVE FAILED. WE MUST PREVENT A MOON BASE FROM BEING ESTABLISHED UNTIL WE ARE READY TO DO IT OURSELVES.



I HAVE A PLAN, EXCELLENCY THAT SHOULD SUCCEED BUT FIRST WE MUST TRY AGAIN TO PLANT A SPY IN THE SUPPLY BASE.

THEY WILL NOT BE SO STRICT ABOUT SECURITY NOW.

A FEW WEEKS LATER ON THE MOON BASE



RIGHT. I DON'T KNOW WHY THE LAST TWO CRASHED. MUST'VE BEEN A FAULTY RECEIVER.

GUIDE HER IN CAREFULLY! WE NEED THESE SUPPLIES.



WELL, WHAT DO YOU KNOW. THE I SENT ALONG THREE NEW FLEET THE RAZORS. THEY MUST EXPECT TO HAVE THAT RETURN ROCKET SHIP READY SOONER THAN THEY THOUGHT.

I LET THE RAZORS. THAT'S STRANGE. THEY KNOW ALL OUR IDEAS. ONE WILL LAST FOR YEARS.

WAIT A SEC LET ME LOOK AT THOSE!



LET'S FIRST TACKLE THESE TO A LONE CYCLE AND TRY 'EM AWAY FROM OUR PLASTIC. BUT I HAVE A HUNCH.

WHY ALL THE PRECAUTIONS?

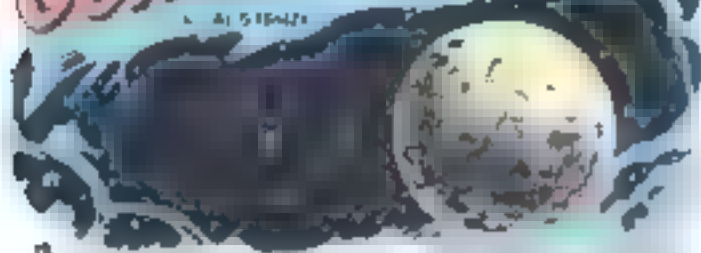


NOW I'LL SWITCH THE CURRENT ON AND WOW!

HEY THAT WOULD HAVE BLOWN US ALL TO BITS!

WHIEW! IT'S A GOOD THING YOU TRIED 'EM OUT FIRST!

SPACE CONQUERORS!



IN THE YEAR 2051 THE FIRST SUCCESSFUL LANDING ON THE MOON WAS MADE. THE THREE PIONEERS SET UP THEIR PLASTIC AIRDOMES, INSTALLED THEIR STEAMIC ENGINES FOR OXYGEN AND POWER AND WERE READY TO BEGIN THEIR EXPLORATIONS.



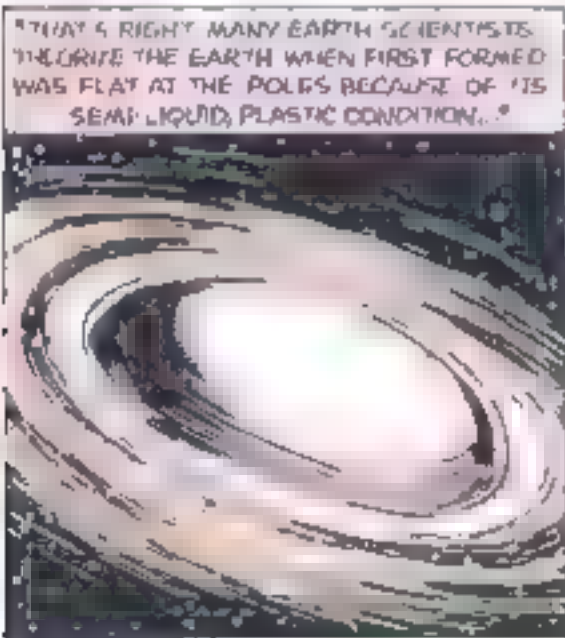
SINCE THE TEMPERATURE HERE ON THE MOON MIGHT DROP TO BELOW ZERO 243 DEGREES DURING ITS TWO-WEEK NIGHT AND RISE TO 212 DEGREES ABOVE ZERO WHEN THE SUN HITS IT, WE WON'T BE ABLE TO DO MUCH EXPLORING IN ONLY OUR SPACE SUITS.

EARTH IS SENDING US A TEMPERATURE REGULATED SPACE TRACTOR ON THE NEXT RUNNET.



IN THE MEANTIME, LET'S COLLECT SOME ROCKS AND FIND OUT IF THE MOON IS REALLY COMPOSED OF THE SAME MATERIALS AS EARTH TOM'S GOING TO STAND BY THE RADIO.

YOU'RE HOPING TO PROVE THE THEORY THAT EARTH AND MOON WERE ONCE ONE BODY EH?



"THAT'S RIGHT! MANY EARTH SCIENTISTS THEORIZE THE EARTH WHEN FIRST FORMED WAS FLAT AT THE POLES BECAUSE OF ITS SEMI-LIQUID, PLASTIC CONDITION."



"THEN IT GRADUALLY BECAME DUMBBELL-SHAPED WITH UNEQUAL WEIGHTS ON THE EARS."



"EVENTUALLY THOSE ENDS SEPARATED. THE SMALLER END BECAME THE EARTH'S MOON WHICH SLOWLY MOVED FARTHER AND FARTHER AWAY FROM THE EARTH."

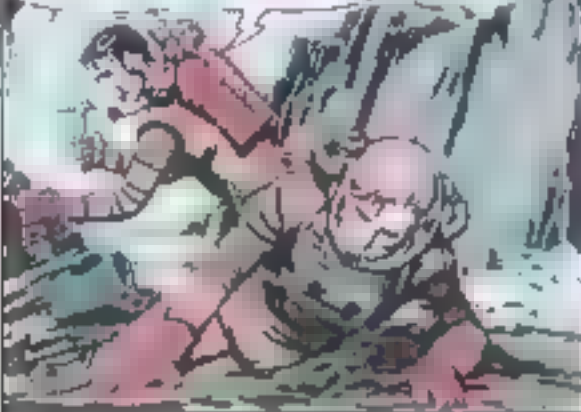


"I BELIEVE THERE MUST BE SOMETHING TO THAT THEORY BECAUSE THE MOON IS STILL MOVING AWAY FROM EARTH."

THAT'S RIGHT! AT ABOUT SEVEN FEET IN A HUNDRED YEARS.

THE TWO SPACE SUITED MEN WERE BUSILY CHIPPING OFF ROCK SAMPLES AND STOWING THE SPECIMENS IN THEIR SACKS WHEN

BILL: BILL! THIS YELLOW ROCK LOOKS A LOT LIKE URANIUM ORE
BILL: CAN YOU HEAR ME? HEY SOMETHING'S WRONG



HIS OXYGEN LINE WAS LEAKING
HE'S PASSED OUT COULD BASE-
BASE TOM - MAYDAY
MAYDAY



PUT ON YOUR SUIT QUICKLY!
I CAN'T CARRY HIM ALONE IN
HIS HEAVY SUIT HURRY TOM-
HE'S LOSING OXYGEN FAST!



MAN YOU'RE JUST IN TIME!
HE CAN'T LAST
MUCH LONGER!

I BROUGHT
A BOTTLE OF
OXYGEN DETACH
ONE HOSE AND
WE'LL FEED
HIM THIS!



THAT DID IT HE'S
PLOWING AROUND
WHEN THAT WAS
CLOSE HE JUST
PULLED OUT I ONLY
NOTICED IT BY A
LUCKY CHANCE

HE'S TIGHT-
WE'LL BE AT
RIGHT FEELING
BETTER BILL?



I'M OKAY JUST
FELT DROWSY ALL
OF A SUDDEN

A SHORT WHILE LATER

HERE COMES THE GUIDANCE
ROCKET A LIGHT ON
SCHEDULE A LULL UP TO
CUTTING IT IN BILL?

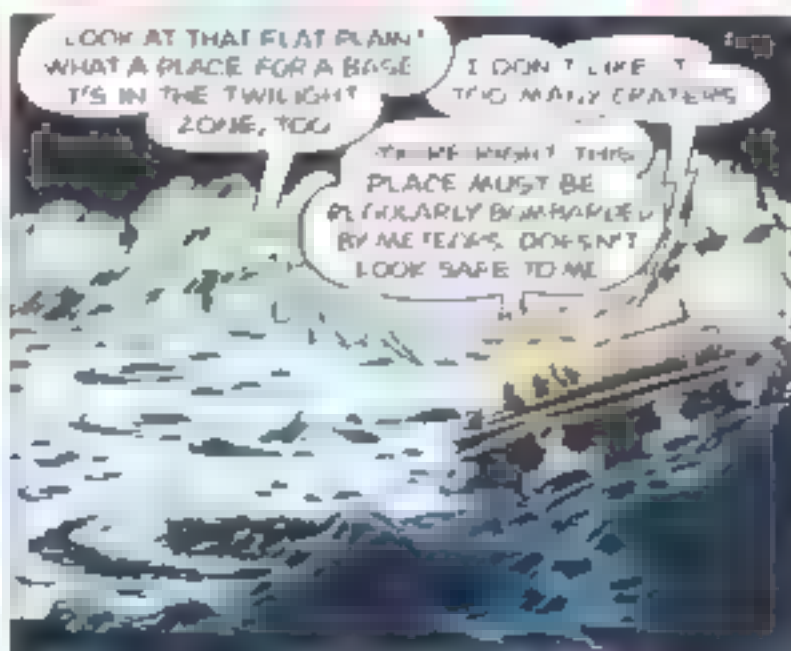
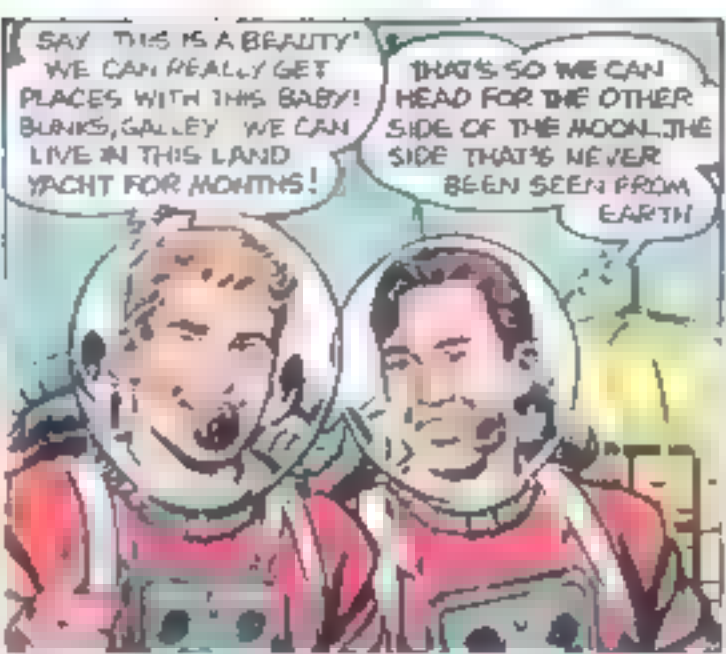
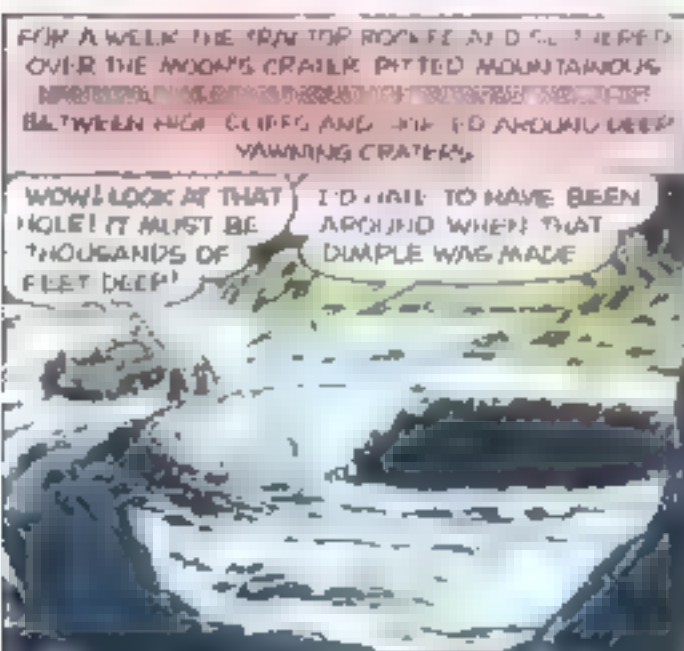
CURE GUESS WE
HAVE TO EXEUTE AN
ACCIDENT NOW AND
THEIR JUST PROXIES
NOW CAREFUL WE
MUST BE

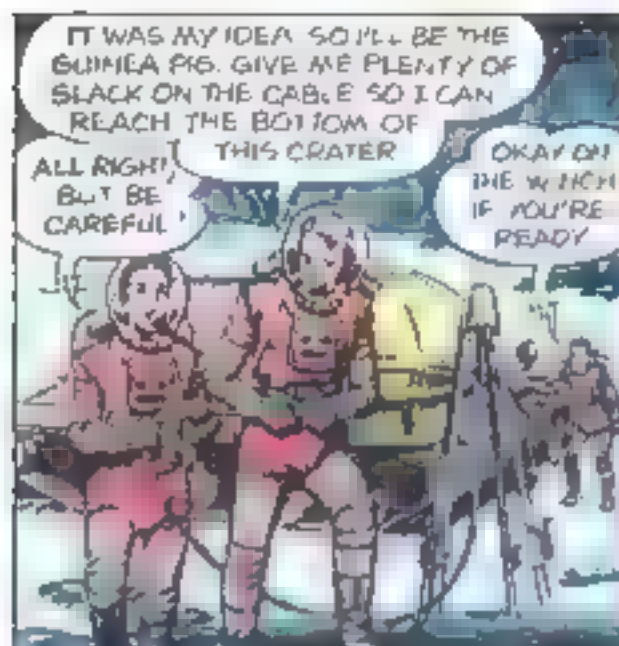
WE'LL BE
FAREWELL LANDING
THIS ROCKET HOPE
THE TRACTOR
IS IN IT





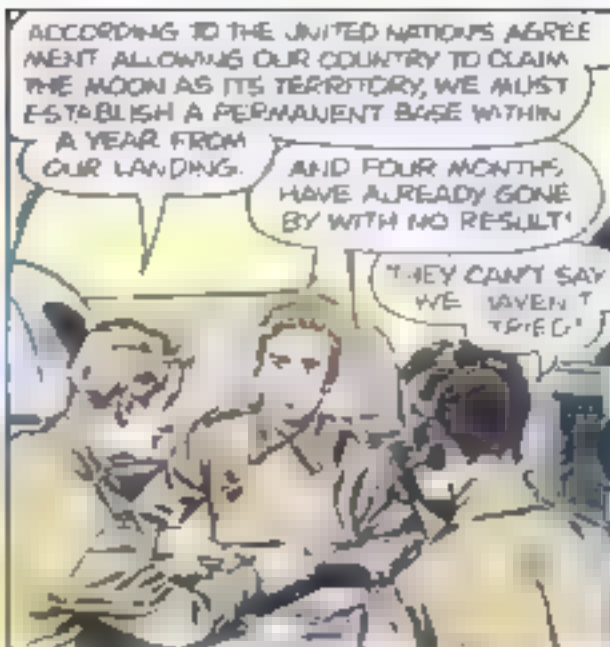
A THREE MAN CREW HAS BEEN ROCKETED TO THE MOON TO ESTABLISH A BASE FOR FUTURE COLONIZATION. SUPPLIES ARE SENT TO THEM BY ROCKET FROM EARTH. THEY HAVE JUST RECEIVED A SEALED CABIN, ATOMIC POWERED TRACTOR







THE THREE MAN EXPLORATION CREW ON THE MOON HAS NOT BEEN ABLE AS YET TO FIND A SUITABLE PLACE TO ESTABLISH A PERMANENT MOON BASE IN THEIR TEMPORARY PLASTIC HUT THEY DISCUSS THE PROBLEM



ACCORDING TO THE UNITED NATIONS AGREEMENT ALLOWING OUR COUNTRY TO CLAIM THE MOON AS ITS TERRITORY, WE MUST ESTABLISH A PERMANENT BASE WITHIN A YEAR FROM OUR LANDING.

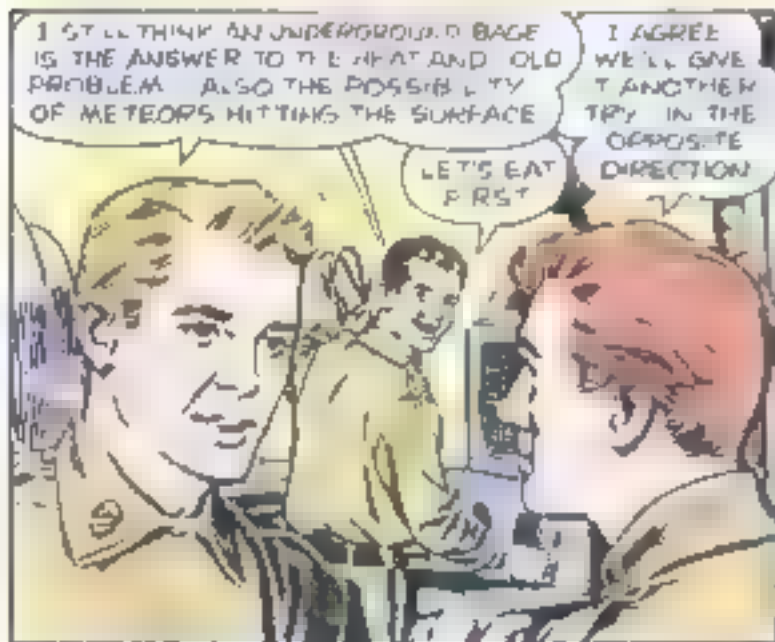
AND FOUR MONTHS HAVE ALREADY GONE BY WITH NO RESULT!

THEY CAN'T SAY WE 'HAVEN'T TRIED'!



JUST TRYING ISN'T GOOD ENOUGH WE'VE GOT TO BEGIN SHOWING RESULTS!

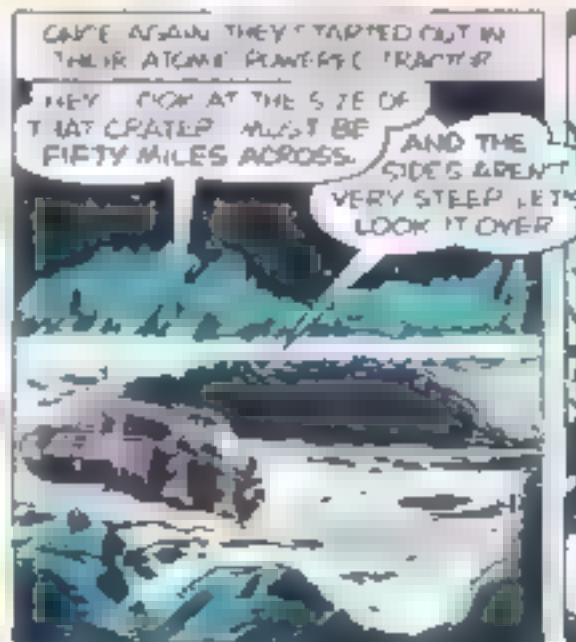
RIGHT! BEFORE SOME OTHER COUNTRY GETS THE JUMP ON US



I STILL THINK AN UNDERGROUND BASE IS THE ANSWER TO THE HEAT AND OLD PROBLEM ALSO THE POSSIBILITY OF METEORS HITTING THE SURFACE

I AGREE WE'LL GIVE IT ANOTHER TRY IN THE OPPOSITE DIRECTION

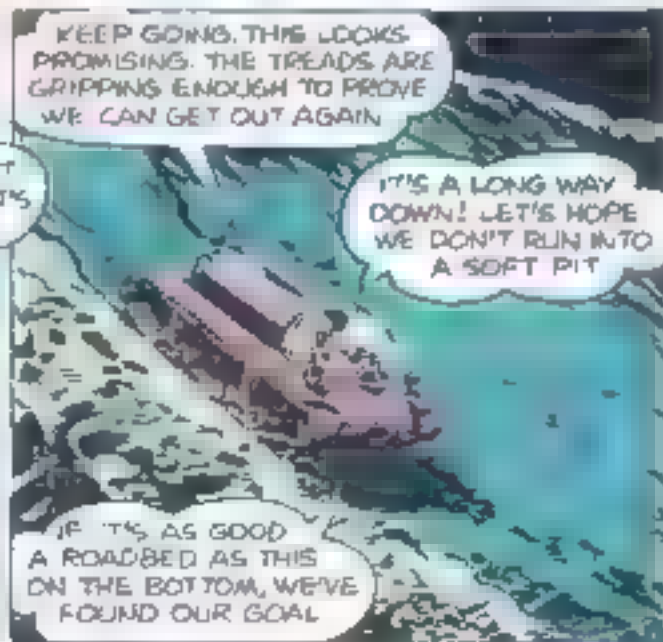
LET'S EAT FIRST



SAFE AGAIN THEY STARTED OUT IN THEIR ATOMIC POWERED TRACTOR

THEY LOOK AT THE SIZE OF THAT CRATER MUST BE FIFTY MILES ACROSS.

AND THE SIDE'S AREN'T VERY STEEP LET'S LOOK IT OVER



KEEP GOING. THIS LOOKS PROMISING. THE TREADS ARE GRIPPING ENOUGH TO PROVE WE CAN GET OUT AGAIN

IT'S A LONG WAY DOWN! LET'S HOPE WE DON'T RUN INTO A SOFT PIT

IF IT'S AS GOOD A ROADBED AS THIS ON THE BOTTOM, WE'VE FOUND OUR GOAL

ABOUT AN HOUR LATER THEY HAD DESCENDED OVER FIVE THOUSAND FEET AND HAD REACHED THE FLOOR OF THE CONE SHAPED CRATER.

LOOK! WHATEVER HIT TO MAKE THIS CRATER LEFT A CONE STANDING IN THE MIDDLE OF IT!

JUST AS THOUGH YOU DROPPED A STONE IN A POOL OF WET PLASTER!

GOSH THIS CRACK IN THE CONE SEEMS TO LEAD STILL FARTHER DOWN!

LET'S GET LIGHTS AND SEE WHERE IT GOES

THEY FOLLOWED THE SMOOTH SLOPING CRACK DOWN FOR AT LEAST TWO MILES BELOW THE SURFACE OF THE CRATER THEY CAME TO A SHARP BEND AND SUDDENLY

IT'S A SUBTERRANEAN CAVERN AND LOOK STALACTITES

AND THAT LOOKS LIKE ICE! ON THE MOON? IMPOSSIBLE!

IT'S ICE ALL RIGHT PROBABLY MILLIONS OF YEARS OLD THE MOON UNDOUBTEDLY ONCE HAD AN ATMOSPHERE BUT LOST IT ON ACCOUNT OF ITS LOW GRAVITY

AND THIS ICE WAS FORMED AT THAT TIME

DO YOU REALIZE WHAT THIS MEANS!

IT MEANS THAT THERE STILL IS OXYGEN LOCKED IN THIS A F OLD ICE AND THESE ANCIENT STALACTITES THERE MUST ALSO BE ICE BURIED ELSEWHERE FAR BELOW THE MOON'S SURFACE MAN CAN RELEASE IT FOR HIS USE

WE'VE FOUND THE PLACE FOR OUR BASE AT LAST! LET'S SET UP OUR HQ HERE!

WE'LL ENLARGE THE CRACK AND DRIVE THE TRACTOR DOWN

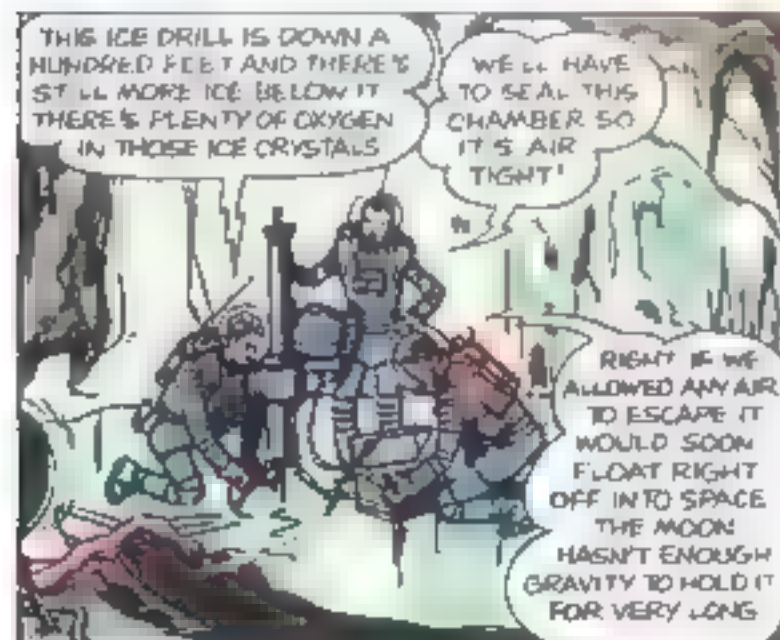
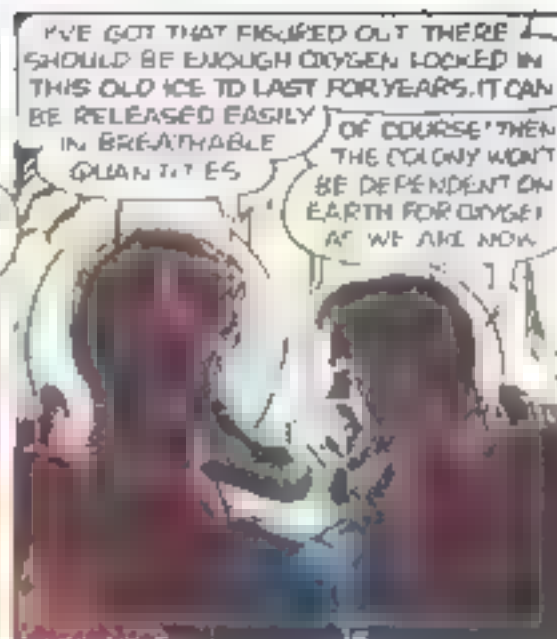
A PERMANENT BASE CAN BE BUILT IN THAT CAVERN WITH AN AIR LOCK AT THE ENTRANCE

THERE MUST BE MORE CAVERNS LIKE THAT ONE, EUREKA! SUCCESS AT LAST

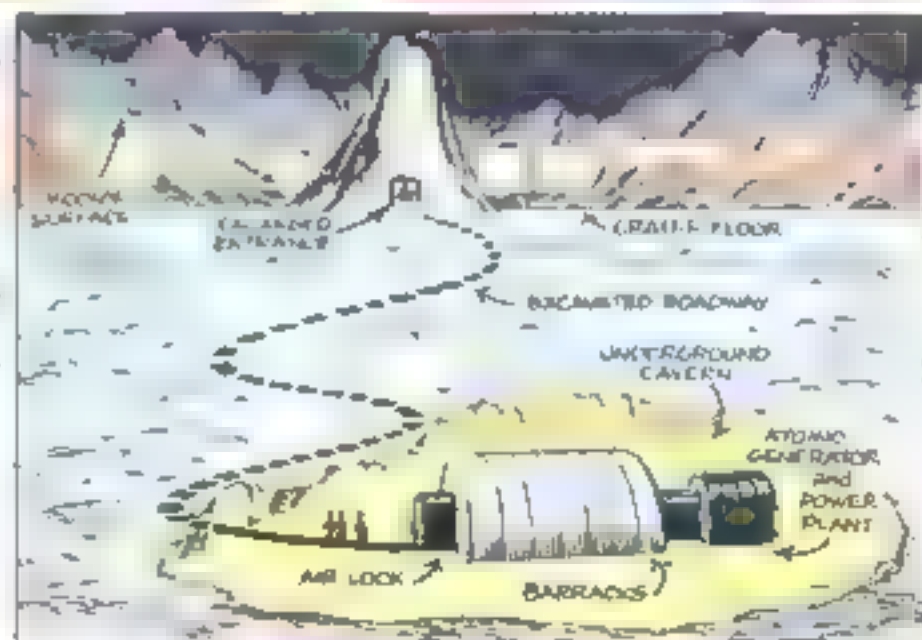
WHAT A SENSATION THIS NEWS WILL MAKE ON EARTH!



HAVING DISCOVERED A DEEP CAVE REFLECTING OF THE MOON'S CRATERS, THE THREE EXPLORERS FROM EARTH BEGAN SETTING UP A PERMANENT BASE IN THE LARGEST OF THE CHAMBERS.



WITH PREFABRICATED PARTS ROCKETED FROM EARTH THE MEN BUILT AN AIR TIGHT BARRACKS WITHIN THE CAVERN AND SET UP THE ATOMIC MACHINE TO EXTRACT OXYGEN FROM THE ICE. EVERYTHING WAS READY TO RECEIVE THE FIRST CONTINGENT OF THE PROPOSED MOON COLONY AS SOON AS EARTH HAD DEVELOPED A ROCKET SHIP ABLE TO REACH THE MOON AND RETURN TO EARTH.



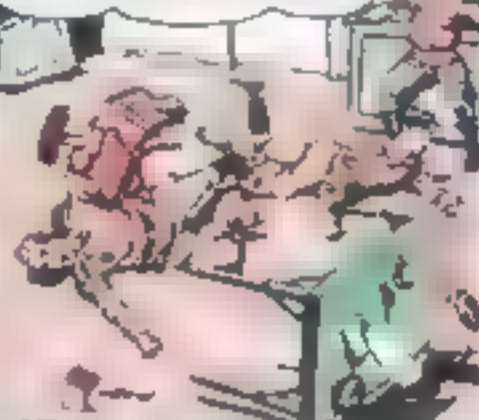
WELL, THAT'S IT, FELLOWS. THE TOP BRASS SENT A MESSAGE OF CONGRATULATIONS AND SAID TO KEEP OUR CHINS UP - KEEP BUSY AND WAIT. IT'S GOING TO BE A WHILE BEFORE THEY'LL BE ABLE TO SEND THE COLONY HERE - THEY ALSO.

HEY! WHAT'S HAPPENING?



WITHOUT WARNING THE BARRACKS IS SUDDENLY SHAKEN AS THOUGH BY A GIANT HAND. A MOONQUAKE!

THE GENERATOR! IF THAT GETS LOOSE AND HITS SOME FISSONABLE MATERIAL!! WE'VE GOT TO SHUT IT OFF!



THE QUAKE, PROBABLY CAUSED BY A ROCK FAULT DEEP IN THE MOON'S INTERIOR, LASTED ONLY A FEW MINUTES BUT DID MUCH DAMAGE TO THE BARRACKS.

THE DOOR TO THE POWER PLANT IS JAMMED!

TRY HITTING IT. IT'S GOT TO OPEN!

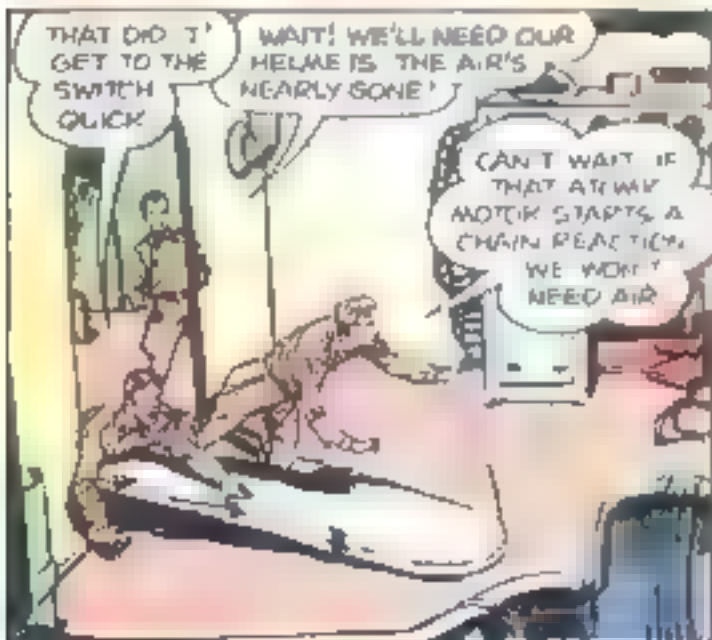
OUR AIR'S ESCAPING. WE'LL SUFFOCATE.



THAT DID IT! GET TO THE SWITCH QUICK!

WAIT! WE'LL NEED OUR HELMETS. THE AIR'S NEARLY GONE!

CAN'T WAIT IF THAT ATOM MOTIVATOR STARTS A CHAIN REACTION. WE WON'T NEED AIR.



HEY! GOT IT! BUT HE CAN'T LAST WITHOUT HIS HELMET!

QUICK! FASTEN YOURS AND HELP ME GET HIS ON!



WELL, WE'VE GOT AIR TIGHT ANY LONGER. IT'S BACK TO THE OLD HELMET IS AGAIN.

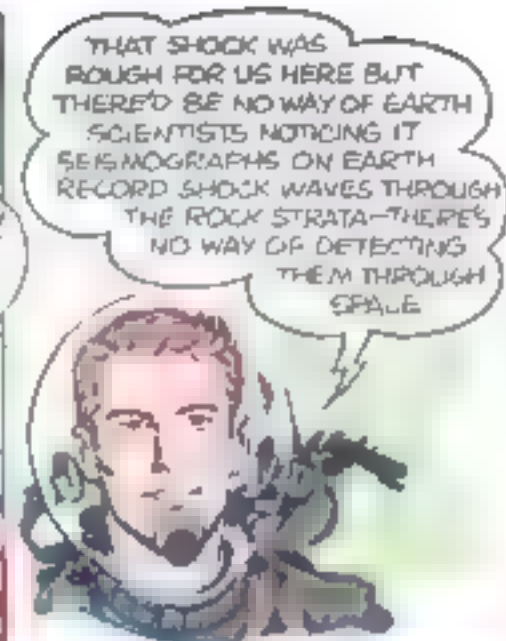
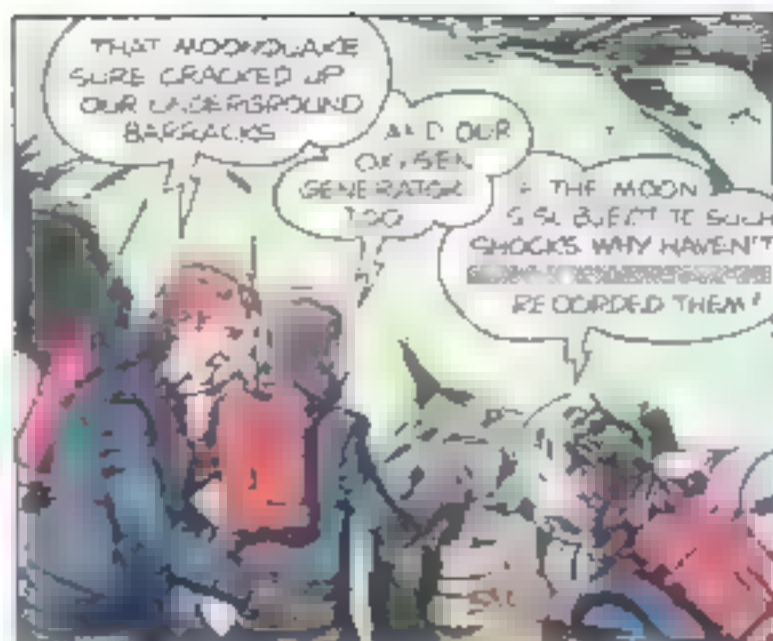
MAKING A MISTAKE! NEVER KNEW THEY HAD THEM THOUGHT THIS WAS A DEAD HUNK OF ROCK!

GUESS THERE'S A LOT WE DON'T KNOW ABOUT THIS PLACE! BUT WE'RE LEARNING.

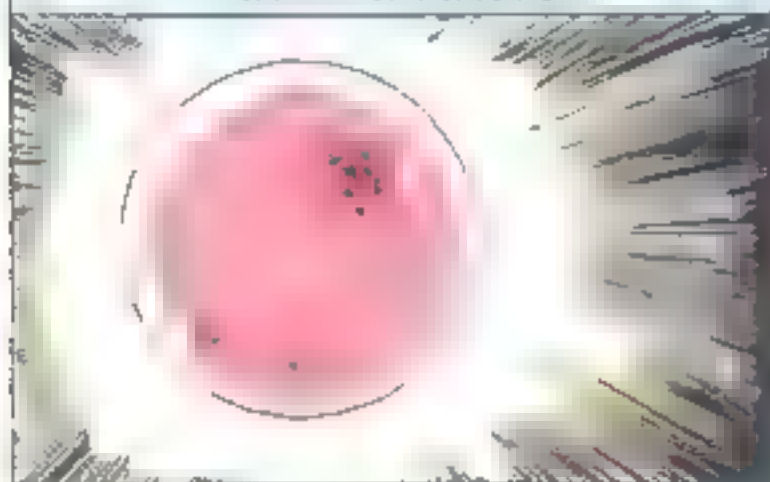




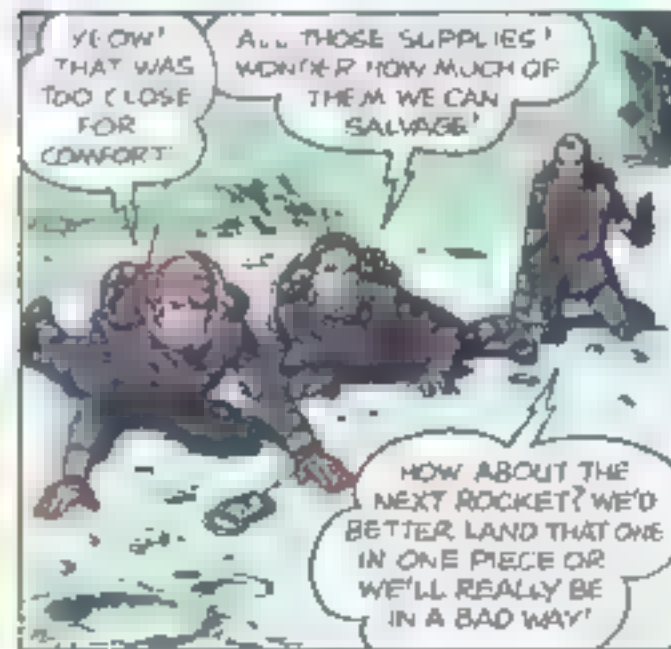
THE EXPLORERS ON THE MOON ARE CHECKING THE DAMAGE TO THEIR QUARTERS CAUSED BY A SEVERE MOONQUAKE



UNKNOWN TO THE MOON EXPLORERS THERE HAD BEEN A TREMENDOUS SERIES OF SUNSPOTS JUST A FEW DAYS BEFORE SHOOTING OFF ELECTRONS THAT NOW ARE SERIOUSLY AFFECTING THE EXPLORERS REMOTE CONTROL RADIO

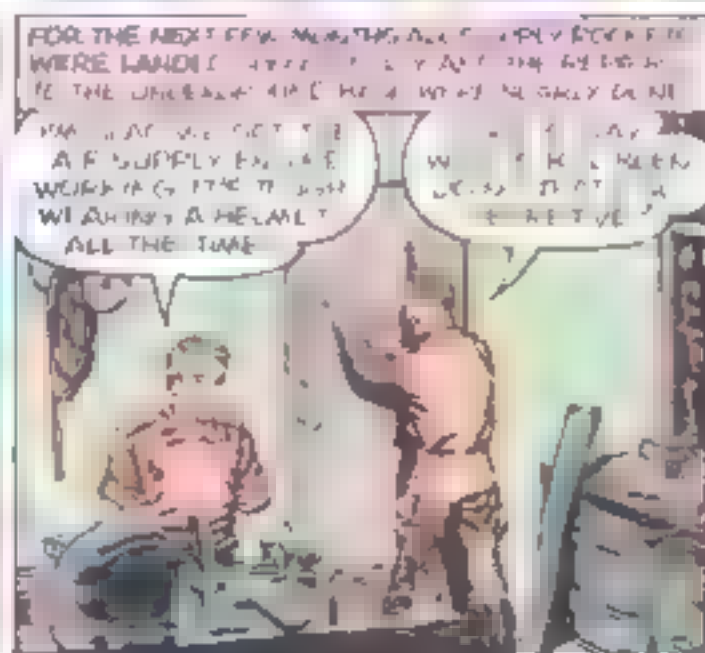
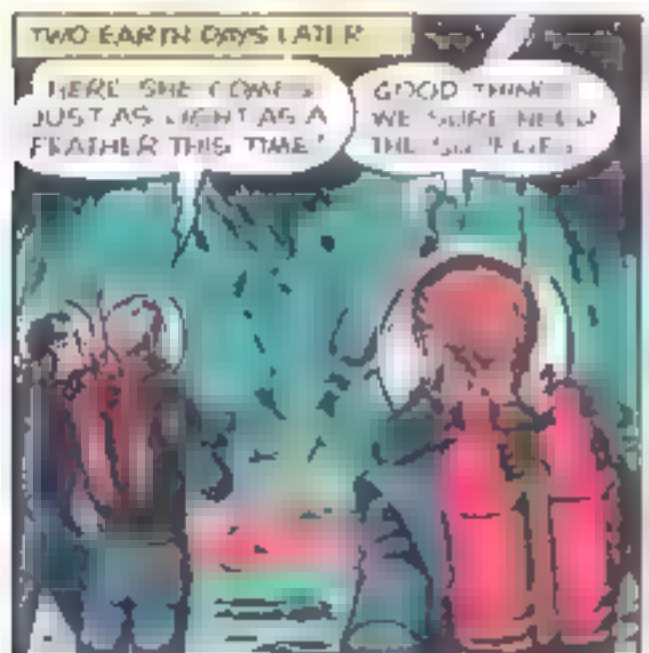


THE SWIRLING STREAMERS OF FIERY GASES SHOOT OUT FROM THE SUN THOUSANDS OF MILES FROM ITS GLOWING SURFACE





SUN SPOTS CAUSED SUCH SEVERE ELECTRICAL DISTURBANCES, THAT THE THREE MOON EXPLORERS COULD NOT PREVENT THE LUNAR SUPPLY CRUISER FROM CRASHING.



AND WHEN THE MEAL WAS SERVED.

BOY! THIS MUST BE REALLY SOMETHING—A COVERED DISH, NO LESS

JUST GET SET FOR A REAL SURPRISE!

WHAT IS IT? STEWED VITAMIN PILLS?



THERE IT IS, FELLOWS EAT HEARTY

WOW! AREN'T VEGETABLES I MUST BE DREAMING!

ONIONES—GREEN BEANS AND PEAS WHERE ON THE MOON DID YOU GET 'EM?



I GREW THEM IN MY GARDEN

YOUR GARDEN? WHO ARE YOU KIDDING? HOW COULD YOU HAVE A GARDEN ON THIS POKERED HUNK OF ROCK?

NEVER MIND NOW LET'S EAT AND THEN TALK ABOUT IT!



WHILE YOU GLUTTONS ARE SPOONING IN THOSE VEGETABLES I'LL TELL YOU MY SECRET—I GREW THOSE IN MY CHEMICAL GARDEN. THE STUFF I NEEDED WAS SENT TO ME ON ONE OF THE ROCKETS FROM EARTH COME ON, I'LL SHOW YOU



GROWING VEGETABLES IN THE MOON IS CALLED HYDROPONICS YOU TAKE A METAL BOX, FILL IT PARTLY WITH SAND, SAWDUST OR PEAT MOSS, OR GRAVEL, PLANT YOUR SEEDS, ADD CHEMICALS AND WATER AND GROW



CHEMICALS NECESSARY TO PLANT GROWTH ARE CARBON, OXYGEN, HYDROGEN, NITROGEN, POTASSIUM, CALCIUM, MAGNESIUM, SULFUR, PHOSPHORUS AND FROM SMALL AMOUNTS OF BORON, ZINC, MANGANESE AND COPPER AS WELL AS A TINY BIT OF MOLYBDENUM SHOULD ALSO BE ADDED.

I CAN'T GET OVER IT—OUR OWN FRESH FRUIT AND VEGETABLES RIGHT HERE ON THE MOON AND WE NEVER KNEW YOU WERE DOING IT!

IT'S ONE ANSWER TO THE FOOD PROBLEM PARTICULARLY ON ISOLATED PLACES LIKE THIS SURE BEATS EATING FOOD CAPSULES DAY AFTER DAY

NOW WE CAN TELL EARTH WE'RE READY TO WELCOME COLONISTS ON THE MOON



SPACE CONQUERORS!

A FULL YEAR HAS PASSED SINCE THE THREE EXPLORERS LANDED ON THE MOON VIA A ONE-WAY ROCKET FROM EARTH. OTHER ROCKETS FROM EARTH HAVE BEEN SENT TO THEM REGULARLY WITH NECESSARY SUPPLIES, AND AS MANY EXTRA COMFORTS AS POSSIBLE. BUT THE LONG DELAY IN PERFECTING A SPACESHIP CAPABLE OF LANING ON THE MOON AND RETURNING TO EARTH IS A GROWING SOURCE OF DISAPPOINTMENT TO THEM.

SITTING AROUND THE TABLE IN THEIR UNDERGROUND BASE, ONE OF THE MEN BRINGS UP THE SUBJECT WHICH UNTIL NOW HAS BEEN AN UNSPOKEN WORRY TO THEM ALL.

LET'S FACE IT, GUYS! WE'RE CONDEMNED TO SPEND THE REST OF OUR LIVES AT THIS BARREN HUNK OF ROCK. THE MATHS OF EARTH RUNS AGAINST US. A TWO-WAY SPACESHIP AKA?

YOU'RE RIGHT, BILL. IT LOOKS PRETTY HOPELESS, BUT WE KNOW THAT WHEN WE GET INTERESTED FOR THIS EXPEDITION.

THE PROBLEM OF CONSTRUCTING A SHIP THAT CAN RETURN SAFELY TO EARTH IS A TOUGH ONE. SHOOTING A ROCKET TO THE MOON WAS COMPARATIVELY EASY. GETTING ONE BACK TO EARTH AGAIN IS THE TUGH WAY BACK. IN 1957, EARLY SCIENTISTS WERE ABLE TO SEND UP MAN-MADE MOONS THAT CIRCLED THE EARTH IN REGULAR ORBIT.



THESE EARTH SATELLITES FILLED WITH RECORDING INSTRUMENTS, GAVE THE SCIENTISTS MUCH IMPORTANT DATA ABOUT OUTER SPACE. AFTER MANY TESTS, THEY WERE ABLE TO SEND UP SATELLITES THAT COULD RETURN TO EARTH WITHOUT DISINTEGRATING.



NOT LONG AFTER THOSE FIRST EXPERIMENTS, A ROCKET WAS SUCCESSFULLY SHOT THAT ACTUALLY LANDED ON THE MOON. ALL IT DID WAS STRIKE A BIG PATCH OF BLUE DYE ON THE MOON'S SURFACE, BUT IT WAS A BIG STEP FORWARD.

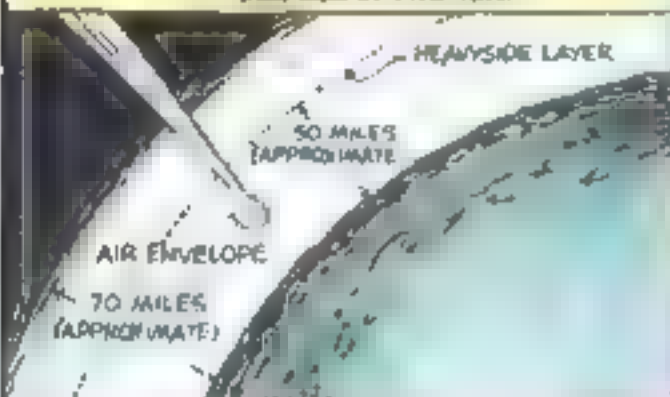


GETTING A MANNED ROCKET SAFELY BACK TO EARTH IS STILL THE BIG PROBLEM, ISN'T IT?

YES, MOSTLY BECAUSE OF EARTH'S ATMOSPHERE. THAT ENVELOPE OF AIR THAT SURROUNDS THE GLOBE.



"TO ESCAPE FROM EARTH A ROCKET MUST ATTAIN A SPEED OF AT LEAST 25,000 MILES PER HOUR TO ESCAPE FROM THE MOON A ROCKET NEEDS A SPEED OF ONLY 5,200 MILES PER HOUR BUT, AS THE ROCKET NEARS THE EARTH, GRAVITY INCREASES THIS SPEED UNLESS SOME POWERFUL BRAKING FORCE IS APPLIED A VEHICLE ENTERING EARTH'S ATMOSPHERE AT THESE SPEEDS WOULD QUICKLY BURN UP LIKE A METEOR BECAUSE OF FRICTION."



"THIS SITUATION DOESN'T EXIST ON THE MOON. HERE, THE AIR RESISTANCE IS PRACTICALLY ZERO. AND ALTHOUGH THE SPEED OF THE ROCKET COMING TO THE MOON IS MUCH GREATER IT CAN BE SLOWED BY ROCKET BLASTS AND LANDED EASILY THE BIG PROBLEM OF FRICTION HEAT IS NOT PRESENT"



WITH ENOUGH FUEL TO CONTINUE ROCKET BLASTING UNTIL THE EARTH-BOUND SHIP IS SLOWED ENOUGH TO ENTER THE EARTH'S ATMOSPHERE IT WOULD BE SIMPLE

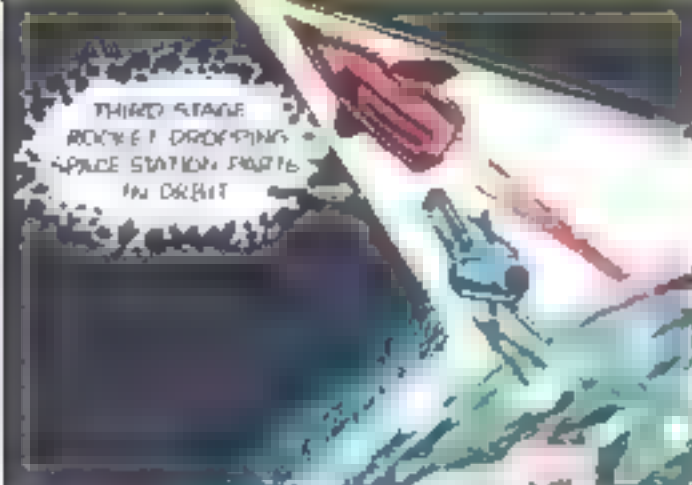
AND THAT WOULD TAKE A MIGHTY BIG ROCKET SHIP!



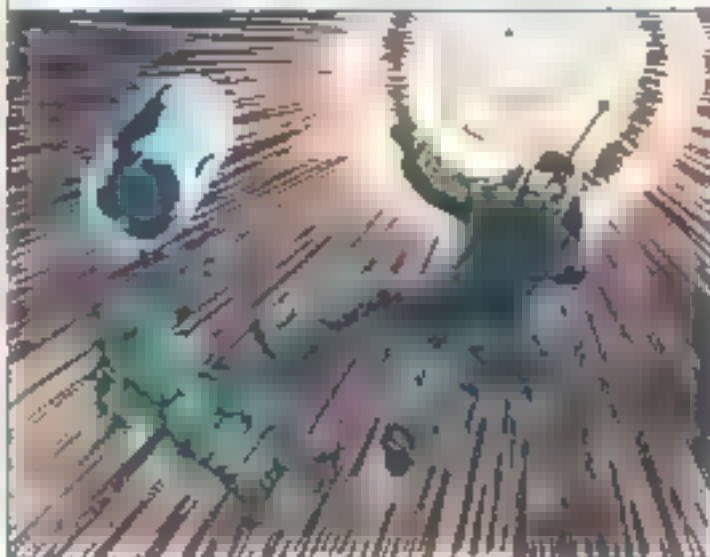
A FEW DAYS LATER WHILE COX OF THE ROCK REMAINS



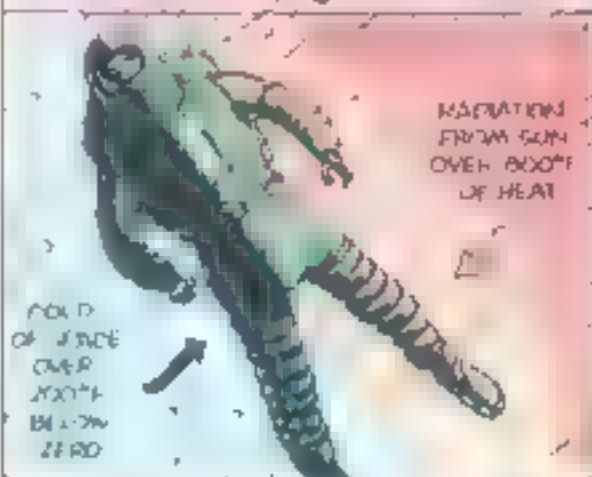
"I WAS TRIED BUT DIDN'T WORK OUT. THAT'S WHY WE WERE SHOT HERE ON A ONE-WAY TRIP. FIRST THERE WAS THE PROBLEM OF SETTING EACH PREFABRICATED SECTION OF THE SPACE STATION IN EXACTLY THE RIGHT ORBITAL SPEED AND DIRECTION."



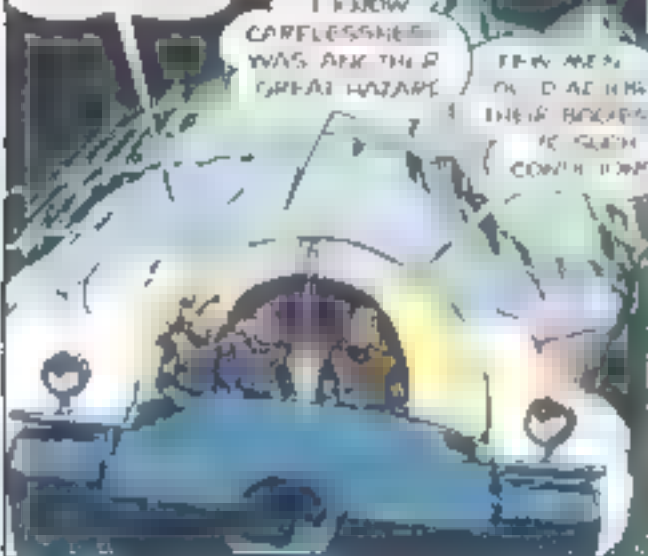
"ONE SLIGHT ERROR SENT MEN AND MATER AL HURLING INTO SPACE TO FALL EVENTUALLY INTO THE SUN OR CRASH BACK ONTO EARTH"



"AND THE FIRST MEN SENT UP TO PUT THE PREFABRICATED SPACE STATION PARTS TOGETHER FOUND THE CONTRAST BETWEEN THE SUN'S HEAT ON ONE SIDE OF THEM AND THE FROID COLD OF SPACE ON THE OTHER TOO GREAT FOR THE HUMAN BODY TO ENDURE"



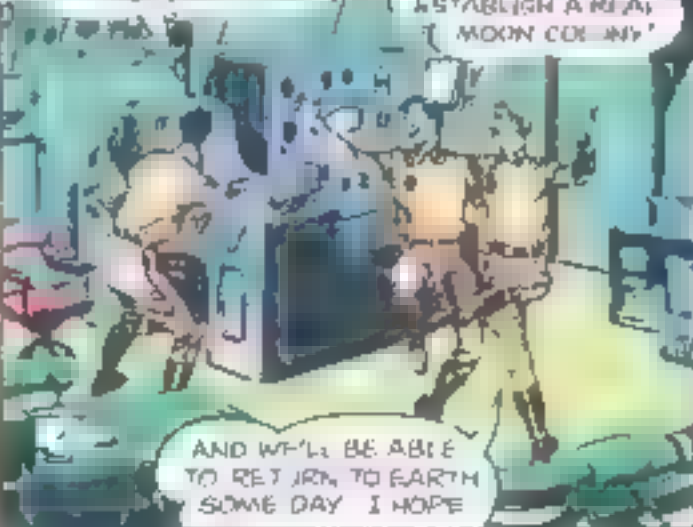
"AND THERE WERE ONLY A FEW OF THE PREVIOUSLY KNOWN HAZARDS"



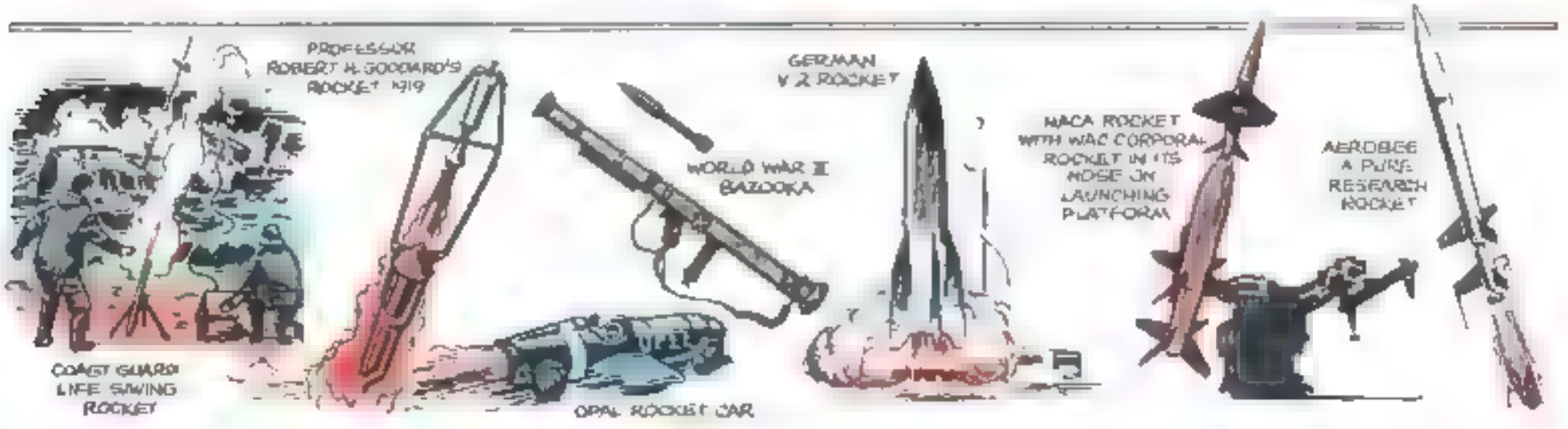
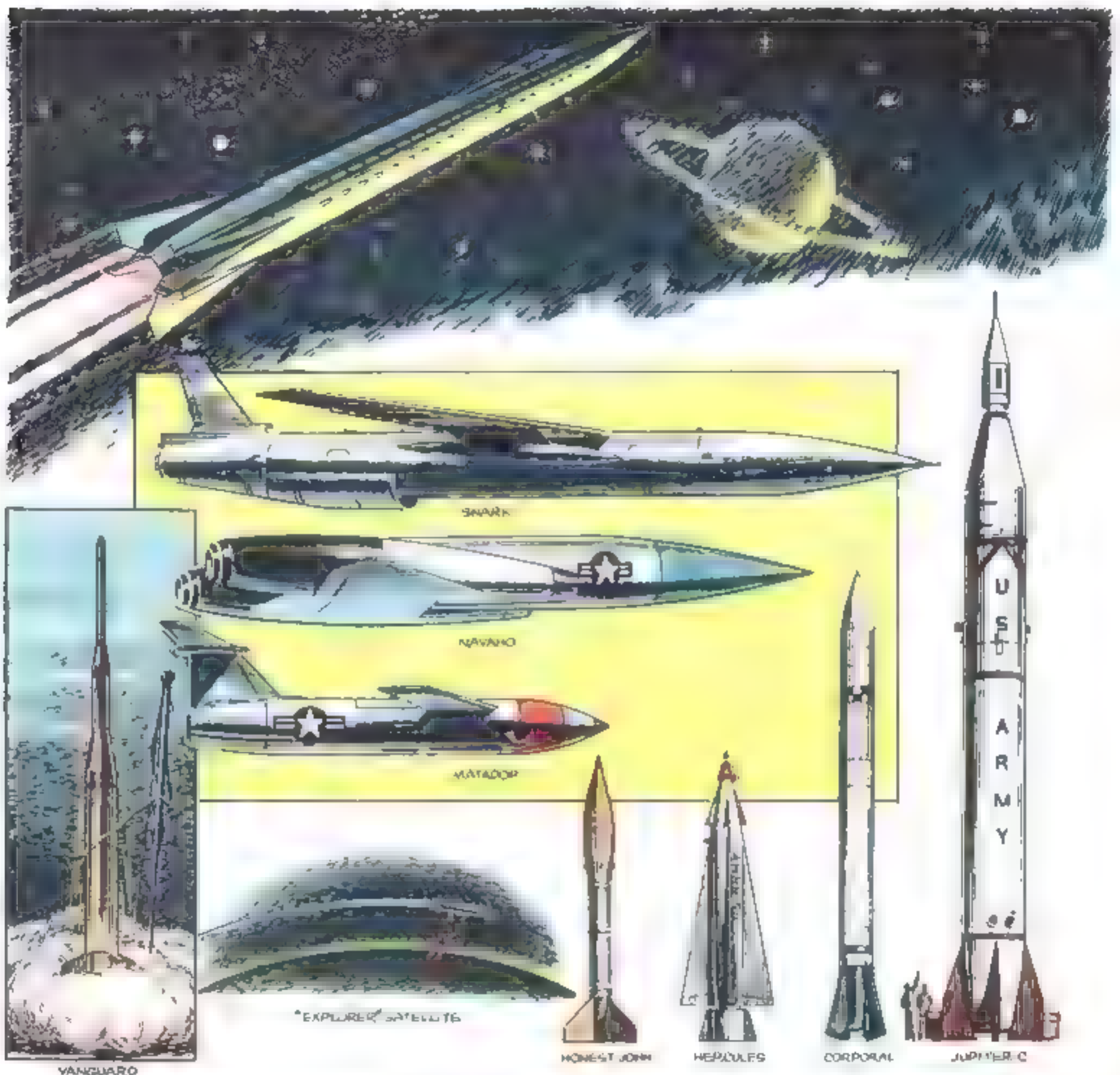
"BUT NOW WE'VE INCREASED OUR KNOWLEDGE OF THE HAZARDS OF SPACE AND A FEW MORE WE'VE DISCOVERED THAT WE'VE NOT YET MADE THE THINGS WE NEED TO BUILD A CHEMICAL PLANT"



"EARTH'S LABORATORY ATTEMPTED WITH OUR PLAN TOY TO LAUNCH MOST OF THE PLANT AND GENTLE TO THE MOON"



THE DEVELOPMENT OF THE ROCKET!





Secret of the MONARCHS

by William F. Hallstead

Frankly Lieutenant Kris, the reason why we asked you to apply for two weeks of active duty isn't to meet your Air Force Reserve training requirements at all."

Colonel Shipley leaned back in his desk chair and motioned to tall, dark haired Everett Kris. "Sit down, Lieutenant. I've got a special assignment for you."

Ev Kris had received a letter from the Air Force a week ago. "You are hereby requested to make immediate application for a two-week tour of active duty," it had read. Ev knew he had already met all of his Air Force Reserve training requirements. But something about the way the letter was written made him answer the request. Seven days later, he landed his cream and red Piper Pacer at nearby Paramore Airport and reported to Colonel Mansfield Shipley, the stocky, gray-browed commander of Cape Jonas Missile Test Center on the eastern shore of Virginia.

Colonel Shipley studied the slender first lieutenant seated before him. "Kris. Security says you're the man for the job. They tell me you run a detective agency back in Chicago."

"I'm afraid I haven't been told much about the job, Colonel," Ev said. "Can't your regular security men—"

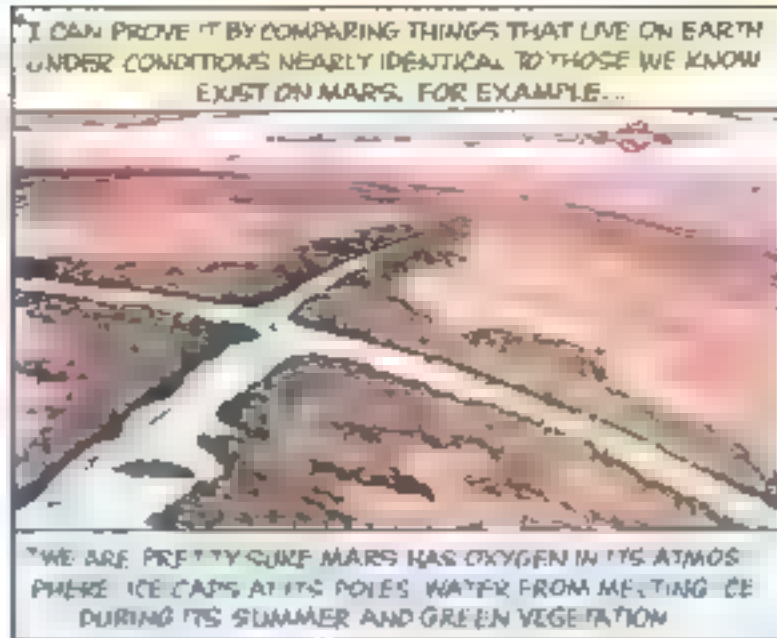
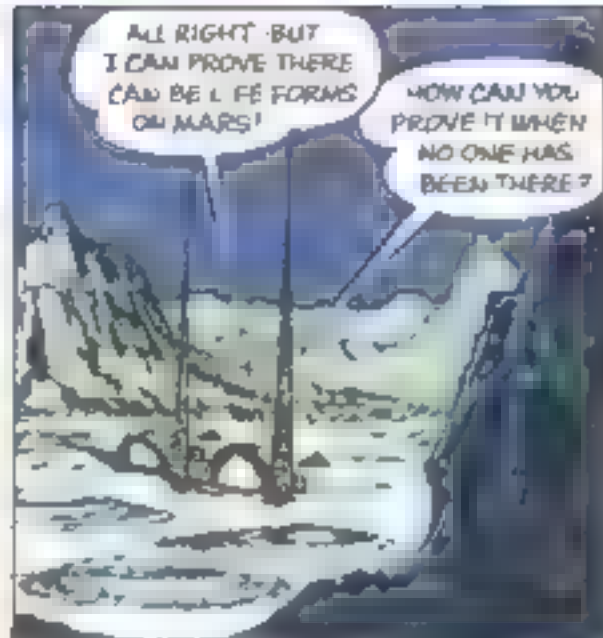
"Precisely what I thought at first, Kris. But something's really gone wrong with our security. I've assigned half a dozen men—good men—to this thing. Not a one of them got to first base. It's our opinion that somebody has access to our files and knows which security agent is as soon as we assign him to the case."

"But won't the same thing happen with me?"

"I've called you in myself on sheer hunch and hope," Colonel Shipley said. "I knew your old C.O. overseas, and he thought a



DURING THE TWO WEEKS OF NIGHT AT MOON BASE, WHEN DUTIES ARE FEW, THEORIES ABOUT LIFE EXISTING ON OTHER PLANETS ARE DISCUSSED BY THE CREW.



THERE ARE DESERT AREAS ON EARTH THAT HAVE SIMILAR CONDITIONS. AND THINK OF THE PLANTS AND CREATURES IN THE DESERT.



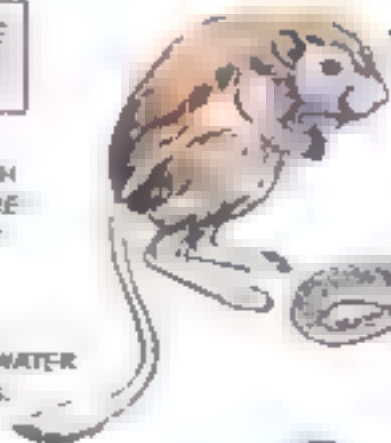
SMOKE TREES THAT FLOURISH WITH VERY LITTLE MOISTURE. DURING DRY SEASONS THEY SHED THEIR LEAVES TO CONSERVE WATER.



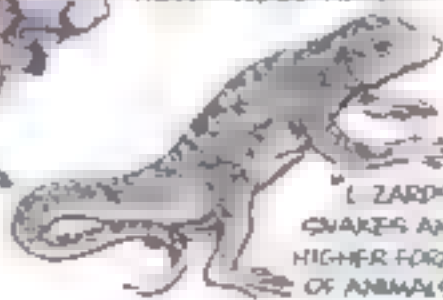
CACTUS THAT STORES WATER IN ITS FLESHY STEMS.



SAGEBRUSH, MESQUITE AND PALMS THAT GROW IN EXTREMELY DRY PLACES.



KANGAROO RATS THAT NEVER NEED WATER.



LIZARDS, SNAKES AND HIGHER FORMS OF ANIMALS.



ANTS AND OTHER INSECTS THAT CAN LIVE UNDER THE MOST UNFAVORABLE CONDITIONS.



SPACE CONQUERORS!

By Bill Wertz

FINDING UNLIMITED DEPOSITS OF BORON ON THE MOON WAS A MOST IMPORTANT DISCOVERY BY THE THREE MOON EXPLORERS SINCE BORON IS A VITAL INGREDIENT IN ROCKET FUEL. PREFABRICATED SECTIONS OF A CHEMICAL PLANT TO MANUFACTURE FUEL FROM BORON WERE ROCKETED TO THE MOON FROM EARTH HEADQUARTERS.

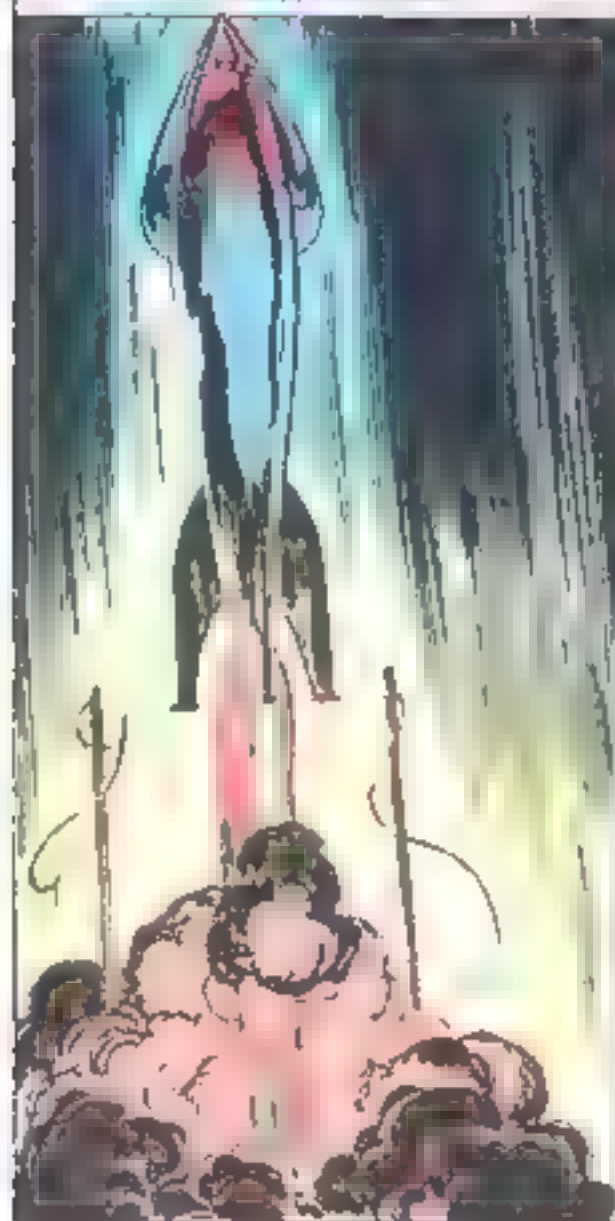
THERE SHE IS A COMPLETE CHEMICAL PLANT READY TO PRODUCE AS MUCH ROCKET FUEL AS NEEDED RIGHT AT THE ENTRANCE TO OUR UNDERGROUND BASE

AND IT ONLY TOOK US A FEW MONTHS TO GET IT UP

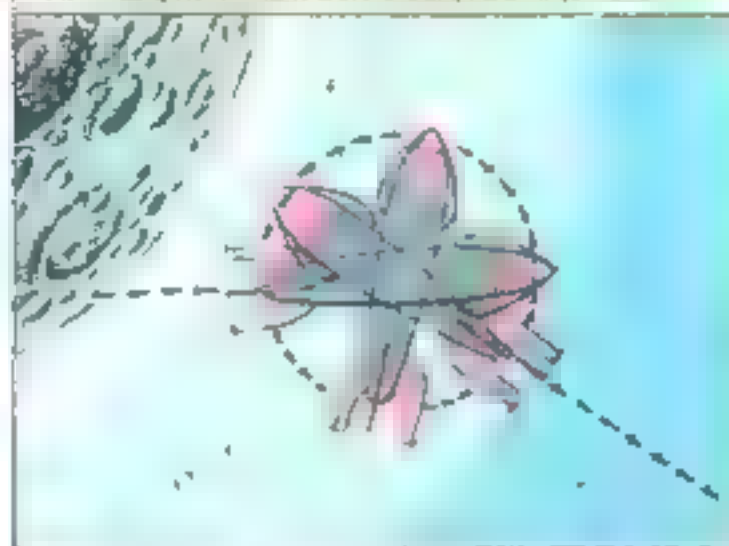
THAT'S BECAUSE OF THE MOON'S LIGHT GRAVITY WE COULD NEVER HAVE HANDLED THOSE SECTIONS ON EARTH



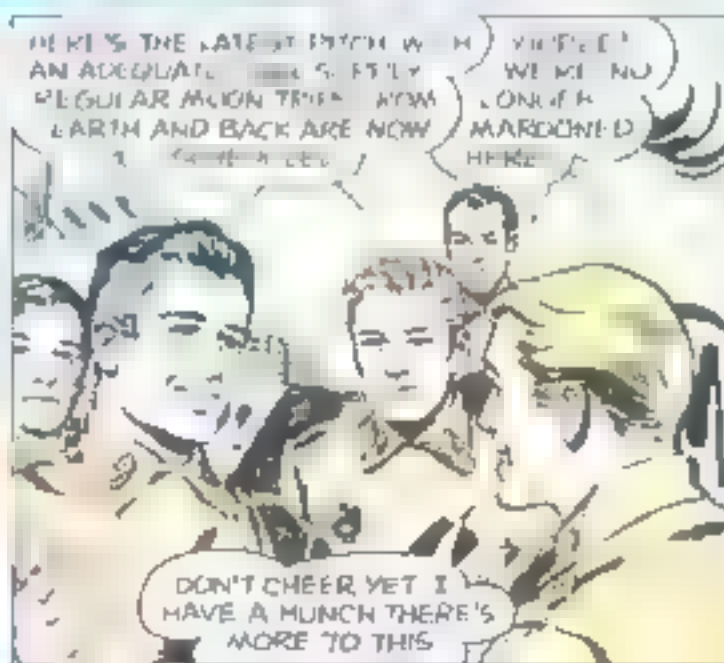
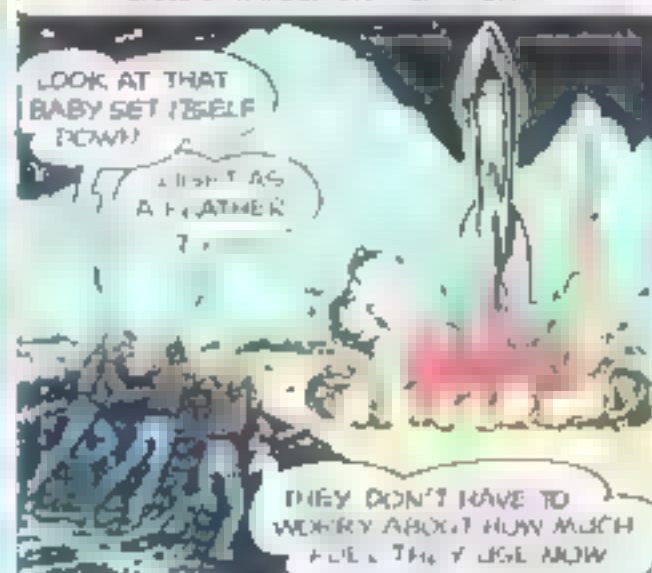
WITHIN A FEW MORE MONTHS THE FIRST
ROUND TRIP ROCKET SHIP IS LAUNCHED
FROM ITS EARTH BASE.

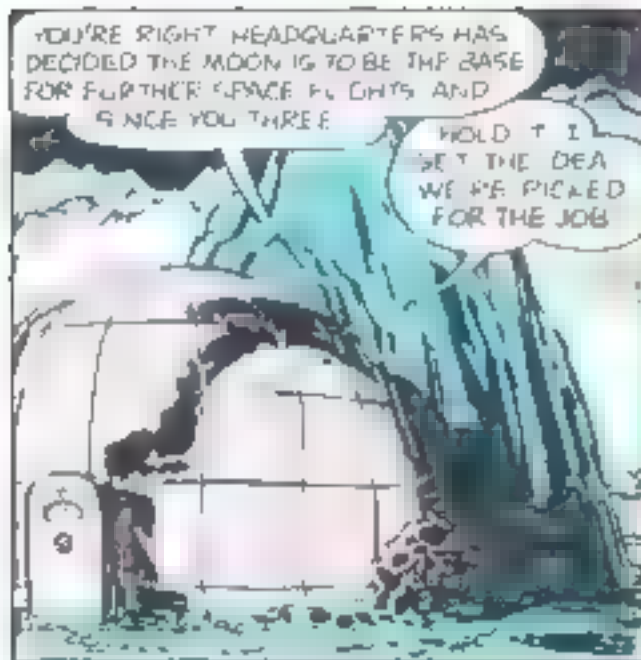


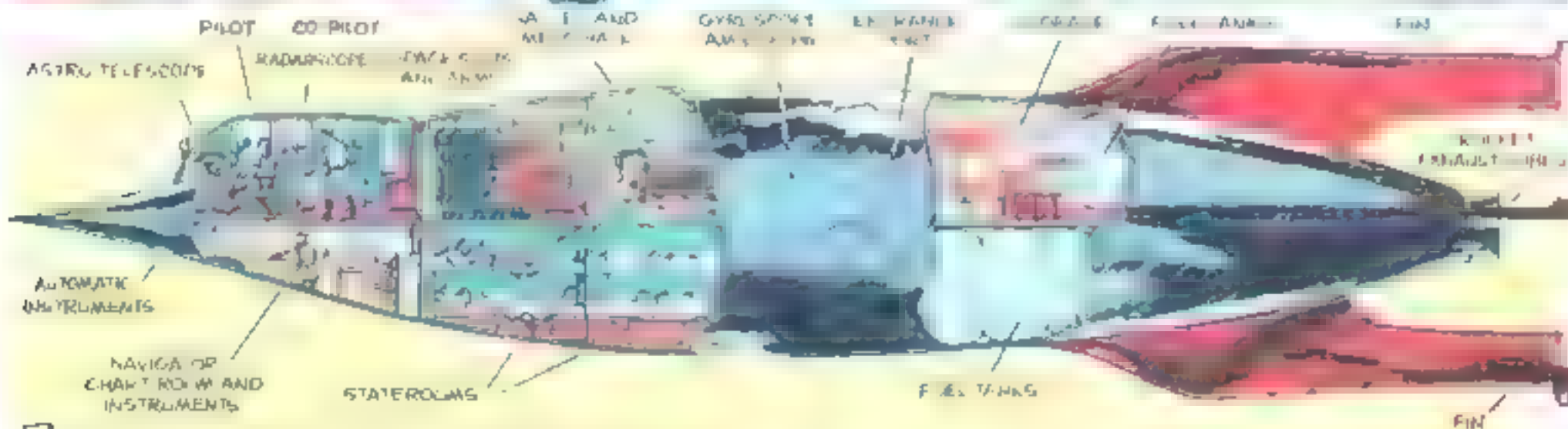
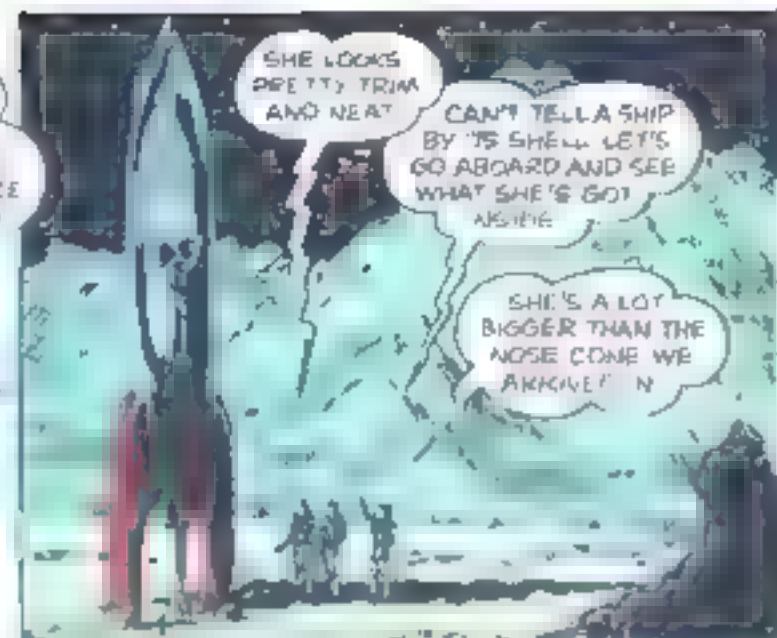
WHEN THE SHIP REACHES THE MOON'S GRAVITATIONAL
INFLUENCE GYROSCOPES TURN IT OVER SO THAT IT
APPROACHES THE MOON'S SURFACE TAIL FIRST.



AND USING ITS ROCKETS FOR BRAKES
LANDS SAFELY ON THE MOON.







THIS IS A CROSS SECTION OF THE SPACESHIP IN WHICH THE THREE MEN WILL ATTEMPT A VOYAGE TO THE PLANET MARS



THE THREE MOON EXPLORERS HAVE BEEN GREETED BY A GROUP FROM EARTH. NOW THEY ARE READY TO TAKE THE NEW SPACE SHIP ON AN ATTEMPTED JOURNEY TO MARS.

THEY HOLD A BRIEFING SESSION WITH THE NEW BASE COMMANDER WHO HAD BROUGHT THEIR ORDERS FROM EARTH.

THIS IS ONLY A TEST FLIGHT YOU ARE NOT TO ATTEMPT A LANDING ON MARS.

WE JUST ORBIT THE PLANET AND RETURN TO THIS MOON BASE, EN?

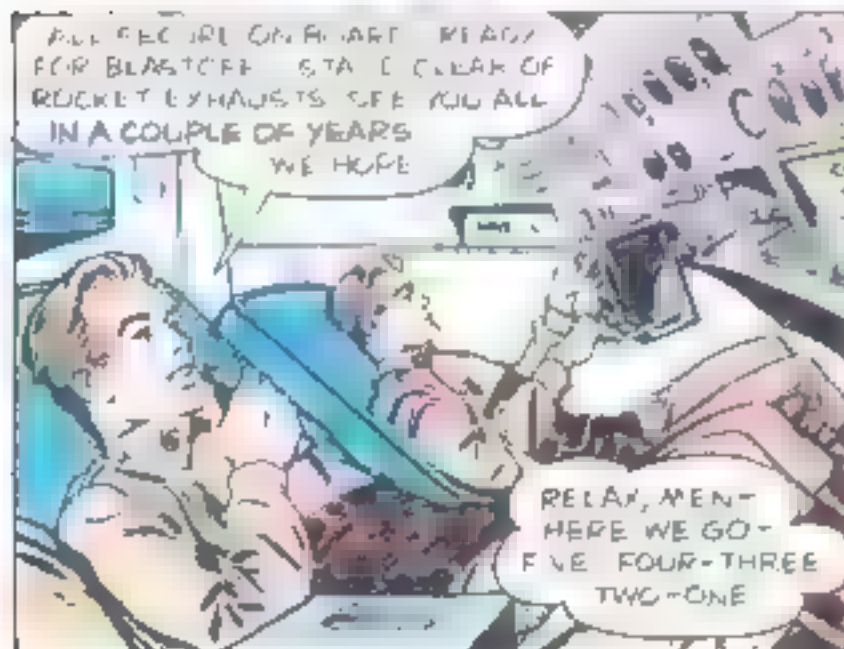


YOU HAVE PLENTY OF FOOD ON BOARD. YOU'LL HAVE TO BE CAREFUL WITH WATER YOUR FUEL SHOULD TAKE YOU TO MARS AND BACK.

SHOULD HE SAY?



WOULDN'T TAKE TOO MUCH FUEL TO GET AWAY FROM THE MOON'S GRAVITY.



ALL SECURE ON BOARD. READY FOR BLASTOFF. STAY CLEAR OF ROCKET EXHAUSTS SEE YOU ALL IN A COUPLE OF YEARS WE HOPE.

RELAX, MEN - HERE WE GO - FIVE FOUR-THREE TWO-ONE



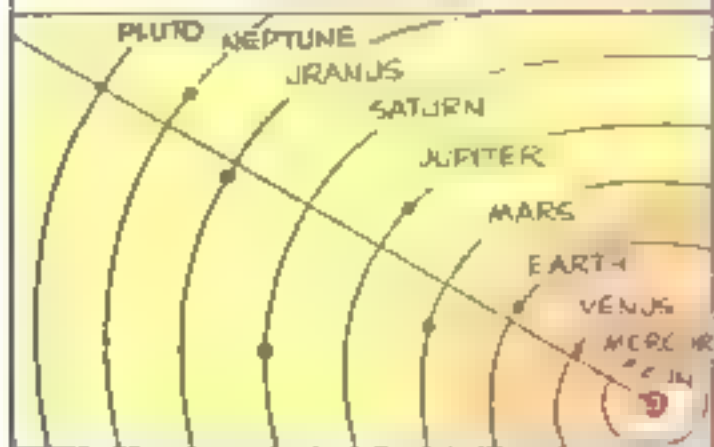
AFTER THE BLASTOFF THE MEN SETTLE DOWN TO THE MONOTONOUS ROUTINE OF TRAVELLING THROUGH SPACE.

THINK WE'LL BE ABLE TO HIT MARS ON THE FIRST NAVIGATOR?

HOPE SO. A GOOD THING ABOUT OUR SOLAR SYSTEM...



"ALL THE PLANETS LIE IN ALMOST A FLAT PLANE WHEN YOU DRAW A LINE FROM THE SUN OUT BEYOND PLUTO NEARLY ALL THE PLANETS AND MOST OF THEIR MOONS WILL PASS WITHIN A FEW DEGREES OF THE LINE WHICH IS CALLED THE ECLIPTIC"



"BUT A QUESTION WHERE MARS WILL BE WHEN WE REACH HER ORBIT"

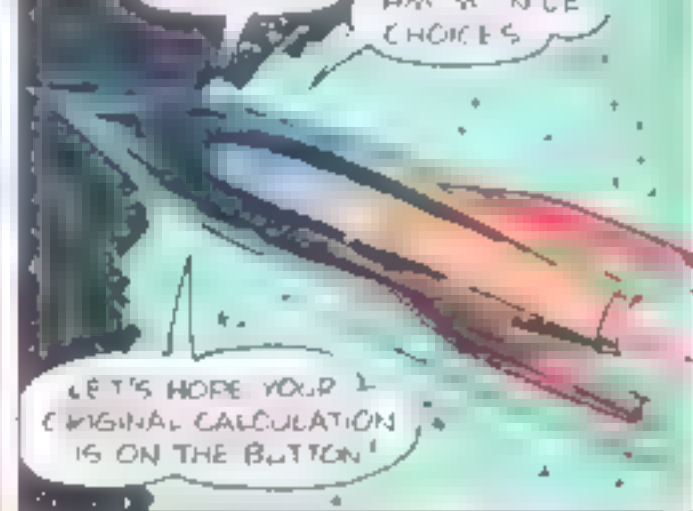
"WHAT HAPPENS IF MARS ISN'T THERE AT THAT TIME?"



"WE'D HAVE TWO CHANCES CIRCLE AND WAIT FOR HER OR DRIFT INTO SPACE FOREVER"

"HMM... NICE CHOICES"

"LET'S HOPE YOUR ORIGINAL CALCULATION IS ON THE BUTTON"



"COULDN'T WE JUST TURN AROUND AND RETURN TO THE MOON BASE?"

"MAYBE BUT IT WOULD TAKE A LOT OF FUEL"

"WHICH WE HAVEN'T GOT TO SPARE"



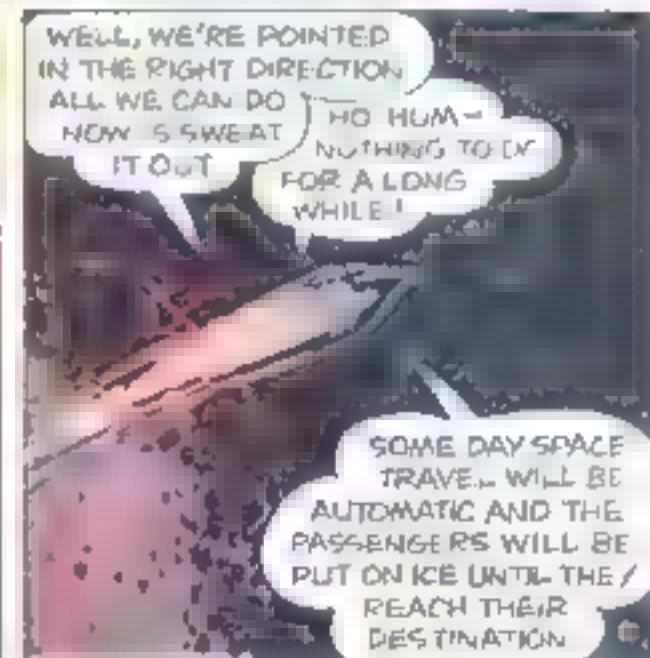
"WE MUST USE MARS GRAVITATIONAL PULL TO FOLLOW IS DOWN TO TAKE THE PHOTOGRAPHS AND USE HER SPEED ALONG HER ORBIT TO THROW US BACK INTO SPACE FOR OUR RETURN TO THE MOON"



"WELL, WE'RE POINTED IN THE RIGHT DIRECTION ALL WE CAN DO NOW IS SWEAT IT OUT"

"HO HUM - NOTHING TO DO FOR A LONG WHILE!"

"SOME DAY SPACE TRAVEL WILL BE AUTOMATIC AND THE PASSENGERS WILL BE PUT ON ICE UNTIL THEY REACH THEIR DESTINATION"



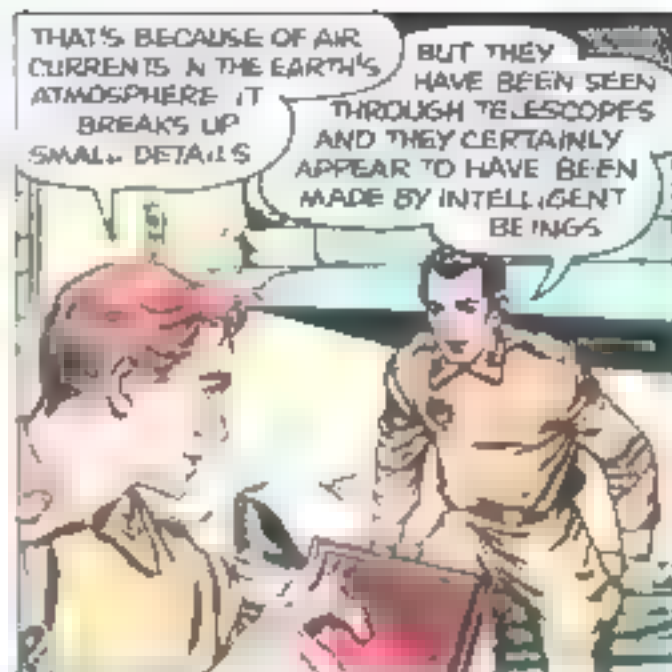


A THE SPACESHIP ZOOMS THROUGH THE VOID ON ITS JOURNEY TO MARS THE THREE MAN CREW PASS THE LONG HOURS READING AND RELAXING



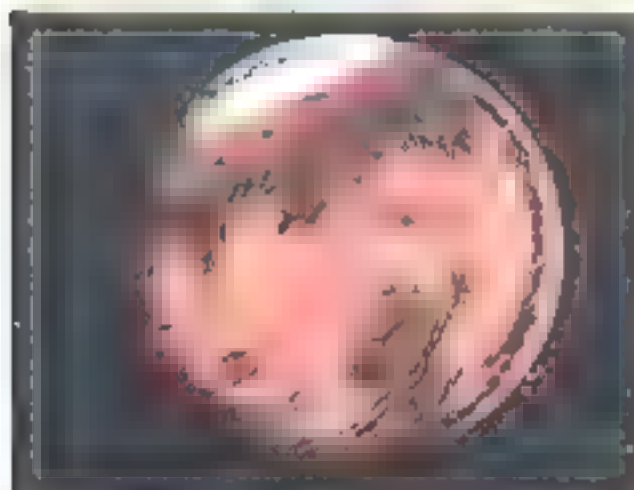
I WONDER IF THERE ACTUALLY ARE CANALS ON MARS AS SOME ASTRONOMERS CLAIM

THEY WERE FIRST REPORTED BY AN ASTRONOMER NAMED SCHIAPARELLI IN 1877 BUT THEY HAVE NEVER BEEN PHOTOGRAPHED



THAT'S BECAUSE OF AIR CURRENTS IN THE EARTH'S ATMOSPHERE IT BREAKS UP SMALL DETAILS

BUT THEY HAVE BEEN SEEN THROUGH TELESCOPES AND THEY CERTAINLY APPEAR TO HAVE BEEN MADE BY INTELLIGENT BEINGS



"AT LEAST WE KNOW THERE IS SOME ATMOSPHERE ON MARS ALTHOUGH NOT MUCH OXYGEN ITS MOSTLY CARBON DIOXIDE AND WATER VAPOR"

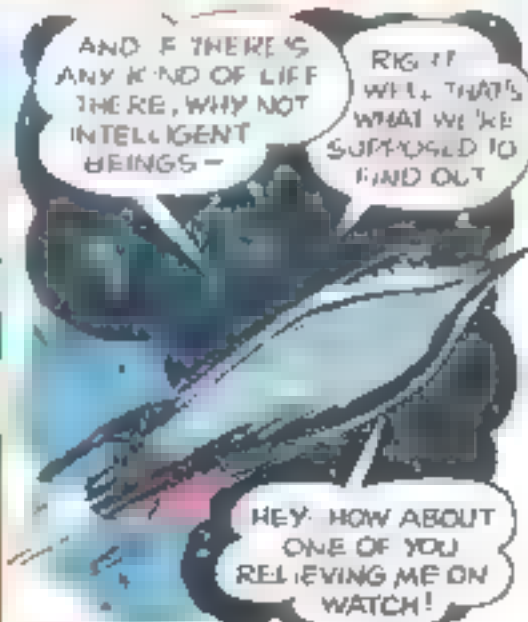
BEING 141,600,000 MILES DISTANT FROM THE SUN IT MUST BE PRETTY COLD



YET IT HAS ITS SEASONS ITS POLAR ICE CAP EXPANDS AND CONTRACTS IN SUMMER AND WINTER



"AND ITS USUAL RED COLOR TURNS A DARK GREEN IN THE SUMMER IF THAT'S VEGETATION THERE MUST BE ANIMALS OR INSECTS, TOO!"



AND IF THERE'S ANY KIND OF LIFE THERE, WHY NOT INTELLIGENT BEINGS -

RIGHT WELL THAT'S WHAT WE'RE SUPPOSED TO FIND OUT

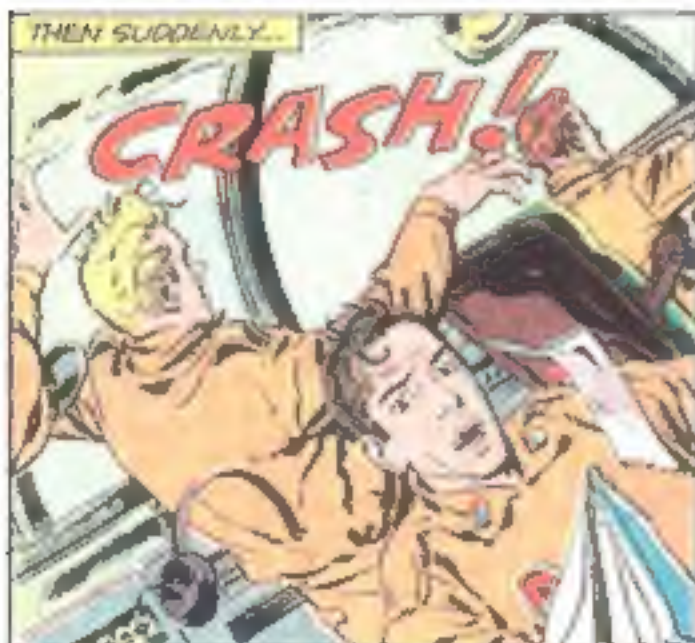
HEY HOW ABOUT ONE OF YOU RELIEVING ME ON WATCH!



RUSHING THROUGH THE TRACKLESS HEAVENS AT INCREDIBLE SPEED THE SPACESHIP FROM THE MOON BASE NEARS ITS DESTINATION—MARS!



AS THE MINUTES TICKED BY THE RED PLANET GREW LARGER AND LARGER THROUGH THE WINDOWS OF THE SHIP'S OBSERVATION BUBBLE.



THE TERRIFIC SHOCK FROM SOME UNKNOWN CAUSE MADE THE SHIP SPIN CRAZILY.



ONE OF THE MEN CRAWLED BACK INTO THE MAZE OF PIPES AND DIALS IN THE STERN. HE MADE A HORRIBLE DISCOVERY...

THE OUTER HULL HAS BEEN PUNCTURED. THE FUEL LINES TO THREE OF THE ROCKETS ARE BLOCKED!



WE'LL HAVE TO LAND AND MAKE REPAIRS. I'LL TRY MARS' SMALL MOON, DEIMOS—I DON'T DARE TRY TO LAND ON MARS ITSELF—EVEN ITS LESSER GRAVITY WOULD CRASH US TO BITS IN OUR PRESENT CONDITION!

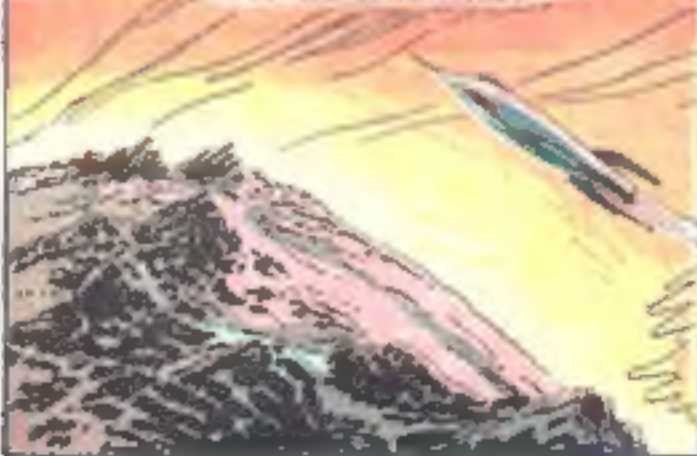


—IF YOU CAN STRAIGHTEN OUT THE SHIP'S COURSE!

IT'LL BE CLOSE! I'LL SHUT OFF THE GYROSCOPES AND TRY TO BELLY-LAND ON ONE ROCKET. STRAP YOURSELVES SECURELY—HERE WE GO...



THE PILOT CAREFULLY MANEUVERS THE SHIP INTO DEIMOS' ORBIT. SINCE THE TINY MOON, ONLY FIVE MILES IN DIAMETER, HAS PRACTICALLY NO GRAVITATIONAL PULL THE SHIP WON'T CRASH PROVIDED ITS SPEED CAN NEARLY MATCH THAT OF THE SATELLITE'S.



EASY-EASY DOES IT! GOTTA SET HER DOWN GENTLY—ANOTHER BLAST ON THE ROCKET...THERE...NOW...



WE MADE IT! NICE GOING, SKIPPER!

MARS SURE LOOKS BEAUTIFUL FROM HERE!

WE'LL SEE HOW NICE IT IS AFTER WE CHECK ON HOW BADLY DAMAGED WE ARE!

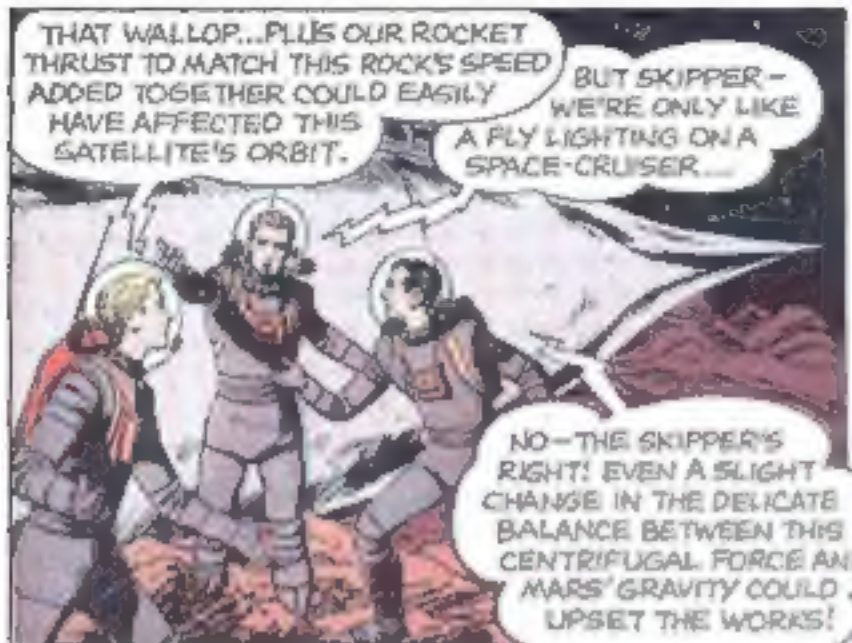


SPACE CONQUERORS!



THE FIRST SPACESHIP TO ATTEMPT A VOYAGE TO MARS IS STRANDED ON MARS' OUTER MOON, DEIMOS, WITH A PUNCTURED HULL AND CLOGGED FUEL LINES.





IF YOU ARE NOT YET A CUB SCOUT, BOY SCOUT OR EXPLORER,
You're Invited!

SEND THE COUPON TO
BOYS' LIFE
NEW BRUNSWICK, NEW JERSEY
PLEASE TELL ME HOW I CAN GET IN
ON ALL THIS ADVENTURE AND FUN!

NAME _____

AGE _____

STREET & NO. _____

TOWN _____

ZONE _____ STATE _____